

**Economic Outlook and Forecasts:
The Nation, Southern California
and Orange County**

Anil Puri, Ph.D.

Mira Farka, Ph.D.

**Research Reports,
Woods Center for Economic
Analysis and Forecasting**

**Orange County Business
Expectations Survey (OCBX)**

Anil Puri, Ph.D.

**Southern California Leading
Economic Indicator**

Adrian R. Fleissig, Ph.D.

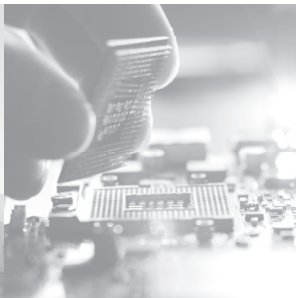
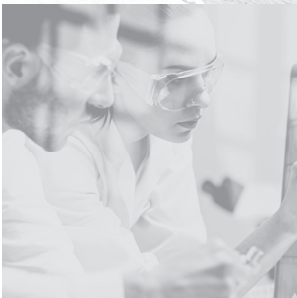
**How Diverse is Orange County's
Economy?**

Aaron Popp, Ph.D.

2017 | Woods Center for Economic Analysis and Forecasting

ECONOMIC FORECAST





**Center for Economic Analysis and Forecasting
Mihaylo College of Business and Economics**

Steven G. Mihaylo Hall, Suite 3100
California State University, Fullerton
P.O. Box 6848
Fullerton, CA 92834-6848
Phone: 657-278-4652
E-mail: mcbe@fullerton.edu
Web: business.fullerton.edu

© California State University, Fullerton

TABLE OF CONTENTS

THE WORLD ON EDGE

Economic Outlook and Forecasts: The Nation, Southern California and Orange County

Anil Puri, Ph.D., and Mira Farka, Ph.D.

U.S. ECONOMIC OUTLOOK AND FORECASTS

The Year of Discontent	5
Stagnant Growth: The Left Behind	8
Where Do We Go from Here? The Road Ahead.....	13
Outlook for Real GDP: Same Ol' Same Ol'	13
The Atlas Curse: Consumers Powering Growth.....	14
Labor Markets: Towards Quasi-Full-Employment.....	16
Tough Going: Business Outlook	17
U.S. Election: Waiting for the Curtain to Fall.....	18
The Fed: Promises ... Promises	21
Chugging Along ... The Global Economy	21

ORANGE COUNTY AND SOUTHERN CALIFORNIA

Housing and Construction.....	23
The Labor Market: Overview and Forecasts	26

TABLES

National	31
Orange County.....	32
Southern California.....	33
Los Angeles County	34
Riverside/San Bernardino Counties	35
Ventura County	36
Imperial County.....	37
Construction and Real Estate ('000)	38

ORANGE COUNTY BUSINESS EXPECTATIONS SURVEY (OCBX)

39

Anil Puri, Ph.D.

SOUTHERN CALIFORNIA LEADING ECONOMIC INDICATOR.....

42

Adrian R. Fleissig, Ph.D.

HOW DIVERSE IS ORANGE COUNTY'S ECONOMY?

45

Aaron Popp, Ph.D.

**THE NEW MILLENNIUM HAS USHERED IN A NEW
ERA FOR THE U.S. ECONOMY: LOW GROWTH AND
EMPLOYMENT, STAGNANT INCOME, AND A PREVAILING
SENSE THAT THE SHARED PROSPERITY OF THE
PREVIOUS DECADES NO LONGER EXISTS.**



THE WORLD ON EDGE

ECONOMIC OUTLOOK AND FORECASTS:

The Nation, Southern California and Orange County

Anil Puri, Ph.D.

Director, Woods Center for Economic Analysis and Forecasting
Interim Provost and Vice President of Academic Affairs

Mira Farka, Ph.D.

Co-Director, Woods Center for Economic Analysis and Forecasting
Associate Professor, Department of Economics, Mihaylo College of Business and Economics

U.S. ECONOMIC OUTLOOK AND FORECASTS

The Year of Discontent

Pablo Picasso, perhaps the most influential painter of the twentieth century, wittily remarked about his own work that "the world today does not make sense, so why should I paint pictures that do?" Indeed, when all is said and done, 2016 will be remembered as the year when wildly unlikely events came to pass. From Leicester City's improbable win of the English Premier Soccer League (with odds of 5000 to 1) to the unexpected decision of UK voters to leave the EU (the odds of leaving were 5% on the day of the referendum), the year has proven stunning from sports to politics. This side of the Atlantic had more than its own share of improbable events: in one of the most exciting NBA playoffs in years, the Cleveland Cavaliers defeated the Golden State Warriors after they were down 3 to 1, a feat that had never been accomplished before in an NBA final. In American politics, Donald Trump – a colorful businessman-turned-celebrity-turned-politician – became the Republican nominee (odds when he entered the race were 100 to 1), while Bernie Sanders – a septuagenarian self-proclaimed social democrat who enraptured millions of (mostly young) voters, narrowly lost the nomination of the Democratic Party after starting the primaries with less than a 1 percent chance of winning it.

Sports aside, there is a common thread that permeates the body-politic of this year: across the western world, a deep sense of resentment, anger, and frustration with the status-quo is reshaping the political discourse. In the U.S., the optimism that commonly infuses presidential campaigns is missing, and the mood is decidedly gloomy and dour. We have gone from a "shining city on a hill" and "hope and change" to "we don't win anymore." Even the message from Hillary Clinton – the Democratic Party nominee and the closest one can get to an incumbent – is an opaque "Stronger together," which says little in terms of optimism and even less about the path forward.

At first brush, this doom and gloom seems a bit outdone, especially when it comes to the economy. The current recovery is in its eighth year – the fourth longest in post-war era and the fifth longest since 1900. There is no denying that we have come a long way since the depth of the Great Recession: real GDP has grown by 15% compared to the second quarter of 2009 (the trough of the recession), employment has swelled by nearly 15 million new jobs, unemployment is below 5%, household wealth is up by \$34 trillion, and even home equity wealth – which was nearly halved due to the housing market meltdown – has rebounded by a healthy \$6.7 trillion, and is now within reach of its all-time high peak. Business activity has also bounced back: investment in equipment has grown by 65% since the end of the recession, housing starts have surged from 585,000 to

There is a common thread that permeates the body-politic of this year: across the western world, a deep sense of resentment, anger, and frustration with the status-quo is reshaping the political discourse.

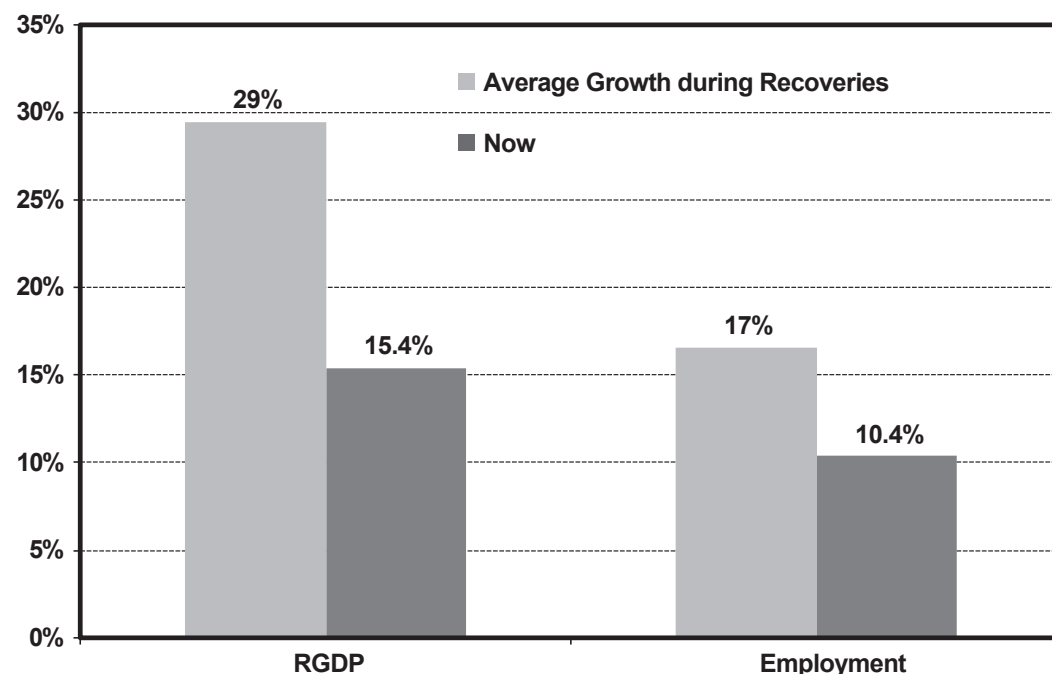
Some of this gloom comes from the fact that despite obvious gains, the economic recovery has been excruciatingly slow and demonstrably lopsided, benefiting some while leaving others behind.

Despite obvious gains, the economic recovery has been excruciatingly slow and demonstrably lopsided, benefiting some while leaving others behind.

1.14 million, and corporate profits as a share of GDP continue to remain at historically high levels. Household balance sheets are in the best shape in over 30 years and the financial sector is better capitalized, healthier, and leaner than prior to the crisis. The stock market has risen by 220% since March 2009, and vehicle sales have skyrocketed to an annualized pace of 18 million per year.

Yet, there is a palpable and pervasive feeling that things simply are not as they should be and that the economy has failed to deliver a shared prosperity. Some of this gloom comes from the fact that despite obvious gains, the economic recovery has been excruciatingly slow and demonstrably lopsided, benefiting some while leaving others behind. Had this been a normal recovery, the economy would have grown by 30%, double the rate recorded so far, which means real GDP would have been \$2 trillion above current levels. Same goes for employment: had this been the normal average recovery, we would have added a total of 22 million jobs by now (Figure 1). Job growth has been primarily in either the low-paying sectors or high-paying sectors, while employment in middle-income jobs has been hard to come by. Labor force participation rate among prime-age workers (between 25-54 years) has dropped by 1.8 percentage points since 2007, and productivity growth has been dismal during the last few years.

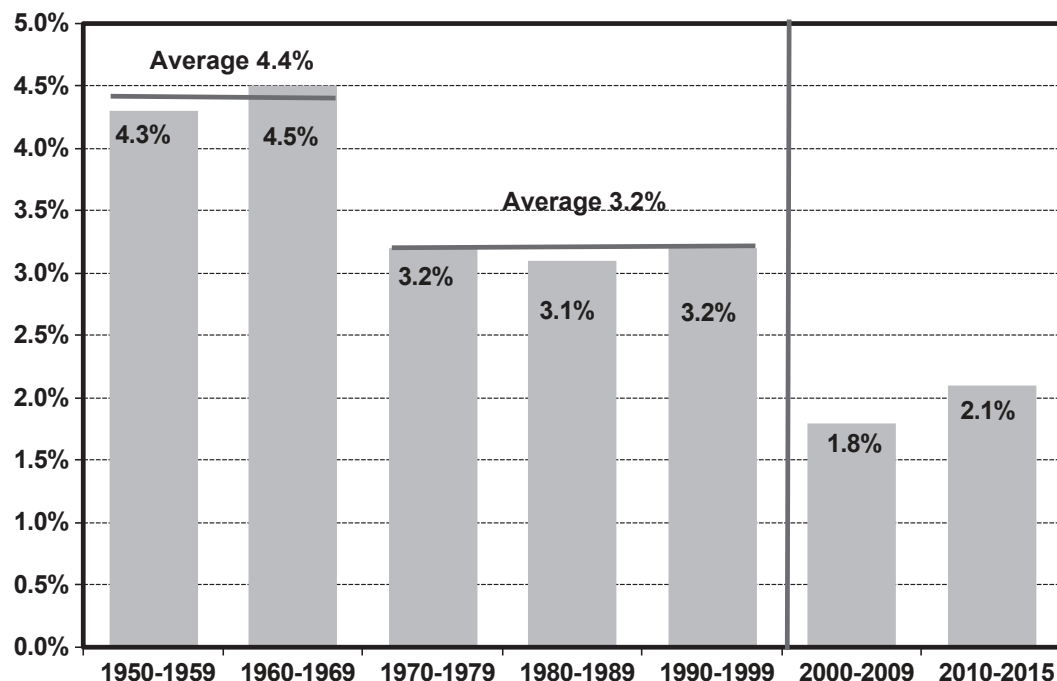
FIGURE 1
Lagging Behind: This Recovery Compared to Average Recoveries
(real GDP and employment, cumulative growth since start of recovery)



The U.S. economy seems to have undergone a structural shift of lower growth and income stagnation since late 1990s/early 2000s – well before the onset of the Great Recession.

However, not all ills can be blamed on the sluggishness of this recovery. Indeed, the U.S. economy seems to have undergone a structural shift of lower growth and income stagnation since late 1990s/early 2000s – well before the onset of the Great Recession. Real GDP growth in the U.S. averaged 3.6% from 1950-2000; it has since dropped to half that, averaging 1.9% from 2001-2016 (Figure 2). Real median household income reached a peak of \$57,900 in 1999; we have struggled to catch up to that level for a full 17 years, and despite recent gains, median income is still below that level. And while all income groups have broadly stagnated, the pain has been disproportionately larger for the lower half of the income distribution, with the bottom 10th decile experiencing an actual decline in real income of 10% relative to the 1999 level. The manufacturing sector averaged 17 million jobs throughout the 90s, but employment rolls in this sector has taken a dive since early 2000, and currently stand at 12 million jobs.

FIGURE 2
Real GDP Growth Has Downshifted Since 2000
 (real GDP growth, average annual percent change)



While all income groups have broadly stagnated, the pain has been disproportionately larger for the lower half of the income distribution with the bottom 10th decile experiencing a decline of 10% in income since 1999.

Our view is that these issues will remain with us for the foreseeable future, placing strains on growth and prosperity, unless structural reforms are put in place to change the trajectory of this secular decline. There are no silver bullets, but much can be done in terms of structural reforms, job re-training, tax reform, and easing of the regulatory environment to encourage business formation and job growth. These reforms take time to implement and much political will, which is perhaps the greatest impediment to progress.

It should come as no surprise then that our outlook for the U.S. economy over the next two years is the same as in the past: a middling, uneven, below-trend continued expansion. There are no burning fires to be put out, just smoldering embers that will continue to deliver an unexciting range-bound growth of 1.6%-2.2%. Having said that, the second half of this year is expected to perform better than the first when growth grew by a paltry 1.1%. Consumer spending is expected to continue to do the heavy lifting going forward, buoyed by continued job growth, higher home valuation, and better prospect for income and wages. Homebuilding and commercial construction are also expected to perform well, and even investment in equipment should improve marginally from the disappointing performance of the last few quarters (though we expect this component to remain weak).

Other factors should also help: the low interest rate environment will continue to persist over the forecast horizon as the Fed scales back its own expectations for raising rates. The inventory cycle, which has subtracted from growth over the past five quarters, is poised to become less of a drag in the next year. The slump in the energy sector – which subtracted appreciably from business investments – seems to have come to an end as oil prices turn a corner, and the trade sector will weigh less on growth (though it will continue to subtract from GDP) as the sharp dollar appreciation appears to be behind us. Fiscal policy should also contribute modestly to growth having subtracted from real GDP between 2011 and 2013 and having remained largely neutral in 2014 and 2015.

Our outlook for the U.S. economy over the next two years is the same as in the past: a middling, uneven, below-trend continued expansion. There are no burning fires to be put out, just smoldering embers that will continue to deliver an unexciting range-bound growth of 1.6%-2.2%.

Risks to the outlook have dissipated a bit relative to the start of the year, though they remain elevated.

Risks to the outlook have dissipated a bit relative to the start of the year, though they remain elevated. The global economy is at a marginally better place today than at the start of the year: China's slowdown is more balanced and less threatening than earlier in the year, the downturn in Russia and Brazil have moderated, and as we expected, the Brexit vote has had limited impact so far on the global economy (certainly much less than the dire predictions of the experts).

The Federal Reserve actions continue to be the driver of volatility in the financial sector: a mini market meltdown occurred in mid-September among fears that the second increase in interest rates was in the offing. The Fed obliged and stayed put. We expect the Fed to raise interest rates in December, bringing the rate hikes for the year to a grand total of one (having promised four at the start of the year). Given how little faith the Fed seems to have on its own forecasts, we expect this heightened uncertainty to persist and add to financial instability.

But the biggest risk to the outlook comes from the U.S. election: by all accounts this has proven to be a highly unusual, contentious, and at times, bizarre cycle. Anti-trade sentiments are embraced, with varying degrees, by both major party candidates. Budget deficits will rise under both candidates' proposals (though more so under a Trump presidency). A full 52% of U.S. CFOs say that they are holding off on spending, and 40% on hiring, due to political risk. In addition, while in normal election cycles, the uncertainty dissipates after election day, nearly one-fifth of CFOs this time around expect to continue to delay investments until more uncertainty is resolved. We are truly living, as the Chinese curse says, "in interesting times." Here is to 2016!!

Stagnant Growth: The Left Behind

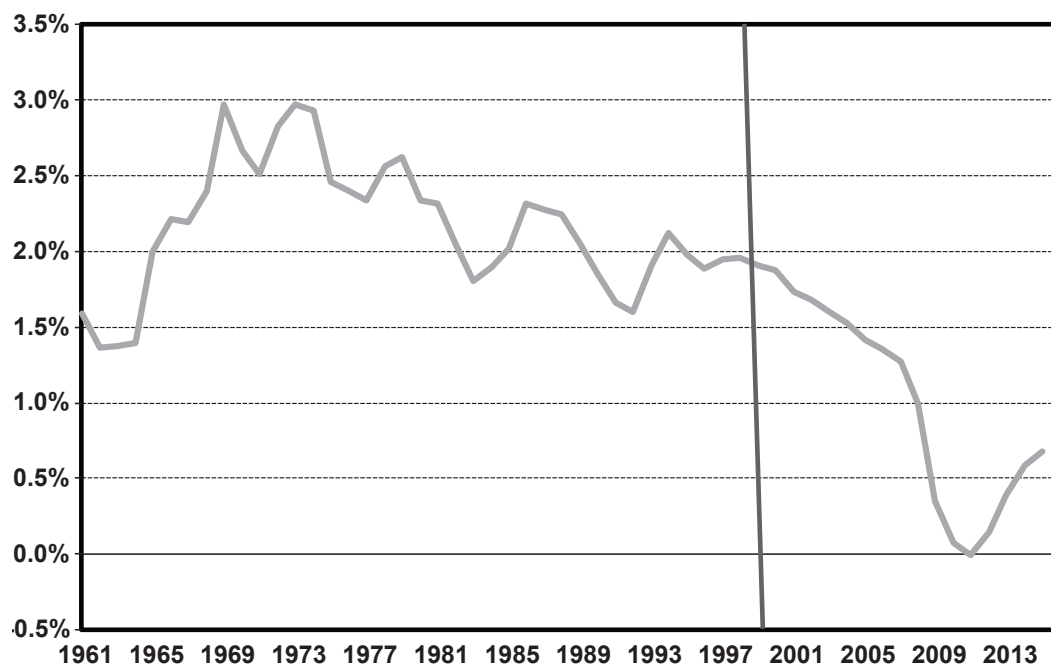
The new millennium has ushered in a new era for the U.S. economy: low growth and employment, stagnant income, and a prevailing sense that the shared prosperity of the previous decades no longer exists. It took a while for this realization to sink in, in large part because the housing boom of the mid-decade managed to distort perceptions and deliver an illusory sense of prosperity (mostly through appreciation in home valuations). But the ravages of the Great Recession and the sclerotic recovery brought these secular forces in full display and with it a growing sense that the "new economy" that emerged from the ashes of the recession no longer works for everyone.

The U.S. economy grew by an annual average rate of 4.4% from 1950-1970 and by 3.2% from 1970-2000. Growth downshifted significantly to 1.9% since the turn of the millennium. Even excluding the devastating years of the Great Recession, the economy has eked out a meager 2.1% growth from 2010-2016.

Signs of this new reality are pervasive: the U.S. economy grew by an annual average rate of 4.4% from 1950-1970 and by 3.2% from 1970-2000. Growth downshifted significantly to 1.9% since the turn of the millennium. Even excluding the devastating years of the Great Recession, the economy has eked out a meager 2.1% growth from 2010-2016. Real GDP per capita is growing at the slowest pace since WWII: historically, on an annualized 10-year basis, real GDP per capita grew on average by 25%-30% compared to the previous decade. That number has edged down to an abysmal 6% over the last couple of years. Business investments have also suffered a marked downshift: investment in Structures averaged an annual growth rate of 2.8% from 1950-2000, but grew only by 0.5% per year since then. Investment in intellectual property has also grown at a more tepid pace of 5.5% in the new millennium compared to an 8% historical average rate.

Job formation has also taken a dive: on a 10-year comparative basis, the U.S. economy added jobs at a historical rate of around 2%-2.5%. The pace downshifted to around 1.5% during the 2000-2007 period, well before the start of the recession. And though the labor market has been one of the brightest spots of the economy over the past two years, on a rolling 10-year basis, the rate of job formation currently stands at a paltry 0.6% (Figure 3).

FIGURE 3
Job Growth Has Moved to Lower Gear Since 2000
(rolling 10-year compound annual growth rates, nonfarm payrolls)



Adding to the woes of the labor market is also the composition of jobs: compared to 2007 (prior to the crisis), the economy has generated jobs in high- and low-income sectors, but less so in the middle-income range. This is problematic: the high-income sectors are not the ones with the lion's share of employment, which means that the recovery has bypassed sizable chunks of population. Information-related jobs, with average salaries of \$1,300 per week have nearly doubled during the recovery, but this sector accounts for a total of only 250,000 jobs. Jobs in computer system designs and related services, which pay an average weekly salary of \$1,731, have also risen by a hefty 40% during the recovery, but even this broad sector accounts for less than 2 million jobs nation-wide. More concerning is the astonishing growth in low-paying jobs: Home healthcare services grew by 50% since 2007, but the average weekly pay in this sector is only \$548. The Leisure and Hospitality sector, which accounts for roughly 11.3 million jobs also grew briskly during this period (by 17%), but the average take-home pay is a measly \$338 per week.

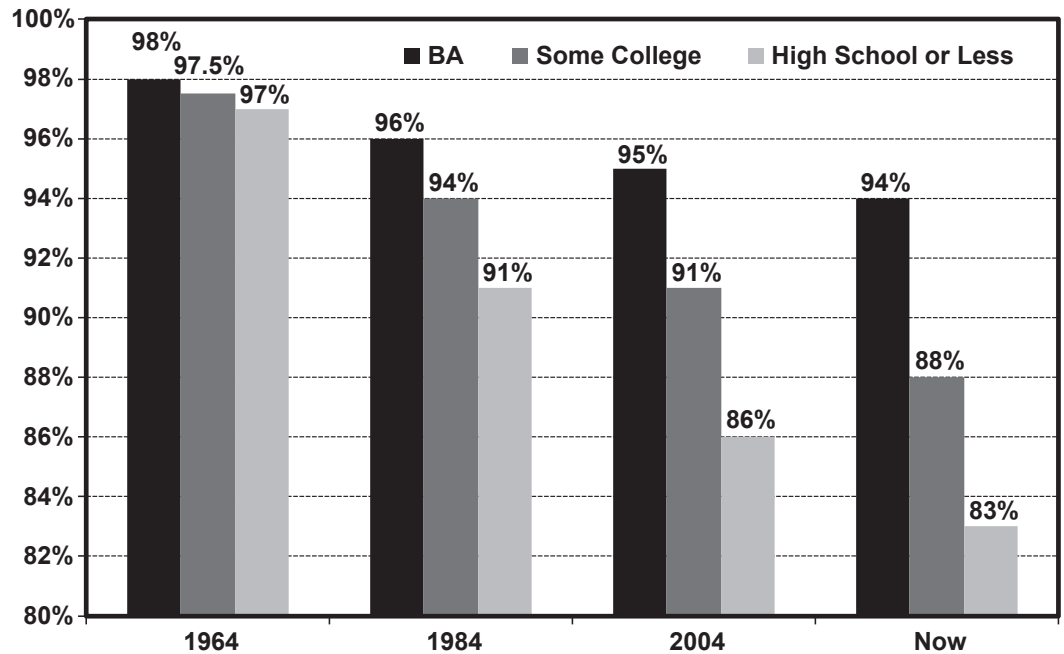
The worst performers have been the middle-income sectors: Specialty trade contractors – which pay around \$1,050 per week with an employment base of 4.2 million – shrunk by 10% during this period. Jobs in the manufacturing sector – which pay on average between \$800-\$1,300 per week – have also suffered heavily since the recession.

Secular labor market woes appear to have engulfed not only demand but also the supply side of the labor market. Labor force participation rates for prime-age workers (those between ages 25-54) reached a peak in late 1990s and has declined by 2.8 percentage points since then. Perhaps the most harrowing development is the decline in labor force participation rate among prime-age men, which has slumped from 96.7% in 1964 to a current 88.6% – a steady decline spanning more than six decades. The downtrend has occurred across all levels of education, but it was steepest among those with less schooling. In 1964, participation rates were 98% for prime-age men with a college degree and 97% for those with high school degree or less. By 2015, participation rates for college-educated men had dropped to 94% – a relatively modest 4 percentage point decline. They plummeted to 83% for those with a high-school degree or less, a jaw-dropping 14 percentage point decline (Figure 4).

Adding to the woes of the labor market is also the composition of jobs: compared to 2007 (prior to the crisis), the economy has generated jobs in high- and low-income sectors, but less so in the middle-income range.

The most harrowing development is the decline in labor force participation rate among prime-age men, which has slumped from 96.7% in 1964 to a current 88.6% – a steady decline spanning more than six decades.

FIGURE 4
Men Without Work: LFP Has Declined More for Men with Lower Levels of Education
(men, labor force participation rates by level of education)



Not surprisingly, income have stagnated since late 1990s for all groups but much more so for the lower-half of the income distribution. From 2000-2015, while real income grew by (an uninspiring) 6% and 5.7% for those in the 95th and 90th percentile, they actually fell for those below the median. Indeed, earners in the 20th percentile experienced a 6.5% decline in real income over this period, with the bigger burden falling on the bottom decile where income fell by a hefty 10%. And though the latest data showed an increase of 5.2% in 2015 compared to the previous year – the largest on record – it is important to remember that real income actually fell in 2014. Compared to 2013, income grew by a less dramatic 3.6% over a two-year stretch, hardly a cause for celebration. Even now, incomes are below their 1999 peak (though within striking distance), which means that the stagnation has lasted for a full 17 years.

The picture is even bleaker at the state level: there are only a total of 6 states (combining for a population of a 50 million) since the start of the new millennium where incomes have risen, though the average increase was by a paltry \$130. But these lucky 50 million are the exception: the rest of the country either saw stagnation or an outright decline in real income. For a second group – 11 states and 65 million people – income reached a peak sometime in the new millennium, but they are currently below that peak. California is part of this group: having reached peak income in 2000, the state's median income have stagnated for a full 15 years. It gets worse: the next 17 states (encompassing 100 million people) experienced a peak sometime in mid-1990s, which means income have been stagnant in those places for roughly 20 years. Rounding up the bottom are the last 16 states (which include Arizona, Nevada, New York and New Jersey) with a population of 101 million, where income peaked in mid-1980s – stagnating for a full 30 years.

TABLE 1
Stagnant Income for Most States

	Number of States	Population	Average # of Years with Stagnant Income
Higher income since 2000	6	50 Million	N/A
Income peaked in new millennium	11	65 million	15 years
Income peaked in mid-1990s	17	100 million	20 years
Income peaked in mid-1980s	16	101 million	30 years

Stagnant income is not just an American phenomenon. Across the rich world, income have stagnated for more than a decade: according to the McKinsey Global Institute, between 65%-70% of households (comprising between 540-580 million people) in 25 advanced economies experienced flat or falling real income between 2005 and 2014. This is in stark contrast with the previous twelve years (1993-2005) when less than 2% of households (roughly 10 million people) saw their income stagnate. Sure, the picture looks less dreary for disposable income: after taxes and government transfers, only 25% of households in advanced economies have experienced stagnant or falling income. But there is something fundamentally problematic with an economy that fails to deliver rising income on its own without the heavy-handed interference of wealth reshuffling from the government.

These trends paint a dour picture and explain in large part the gloomy mood of the electorate across the world. The backlash has been fiercest against globalization, trade, and immigration as witnessed by the Brexit vote in the UK (when after 43 years the country decided to break with the EU) and political discourse in the U.S. To an economist, the principles of free trade are much like the laws of motion to a physicist: self-evident in their beneficial impact on growth and prosperity. This continues to remain the case today, and we firmly believe that, despite current sentiment, trade will continue to thrive and people will continue to trade as they have for 6,000 years of recorded history.

Having said that, there is no denying that there is material basis for broad discontent. Brushing these concerns aside or ignoring them, which has been the prevailing trend, will unquestionably exacerbate the issue. Economists have long understood that free trade and global supply chains dislocate employment and create winners and losers, they have simply assumed that these effects are transitory, self-correcting, and the net gains from trade would invariably more than offset the losses of the dispossessed. However, it is precisely in this part where the profession (and policy prescriptions) have fallen far short: the benefits from trade and globalization seem to have bypassed large swathes of population, creating a sense that the new world order has benefited only those at the top. This is a gross-overgeneralization as global trade has delivered a sizable decline in the cost of many consumer goods, which has disproportionately benefited those at the bottom of the income distribution. A shutdown of trade would cause the poorest 10% of consumers to lose almost two-thirds of their purchasing power, far more than those with high income, who would lose around 28%.

Nonetheless, trade and globalization have created significant dislocation in employment: manufacturing – which offers well paid jobs for mid- and low-education levels and is starkly exposed to global trade – fell only by 1.5 million between 1980 and 2000. Job losses have accelerated to 6 million since the start of the millennium. It is hardly a coincidence that China's accession to the WTO happened around that time. That event was quite unique: China's size and the speed with which it integrated itself in the global supply chain was certainly a major shock. In 1991, China's manufacturing accounted for only 2% of world manufacturing exports: this rose dramatically to 20% by 2015. Recent research found that roughly one-fifth of the jobs lost in manufacturing (around 1.2 million jobs) were wiped out as a result of direct competition from China. Lost manufacturing jobs depressed demand in the areas most exposed to competition, which, in turn, caused more job losses in other local industries. When tallied up, increased competition from China may have caused, directly or indirectly, a loss of 2.4 million jobs.

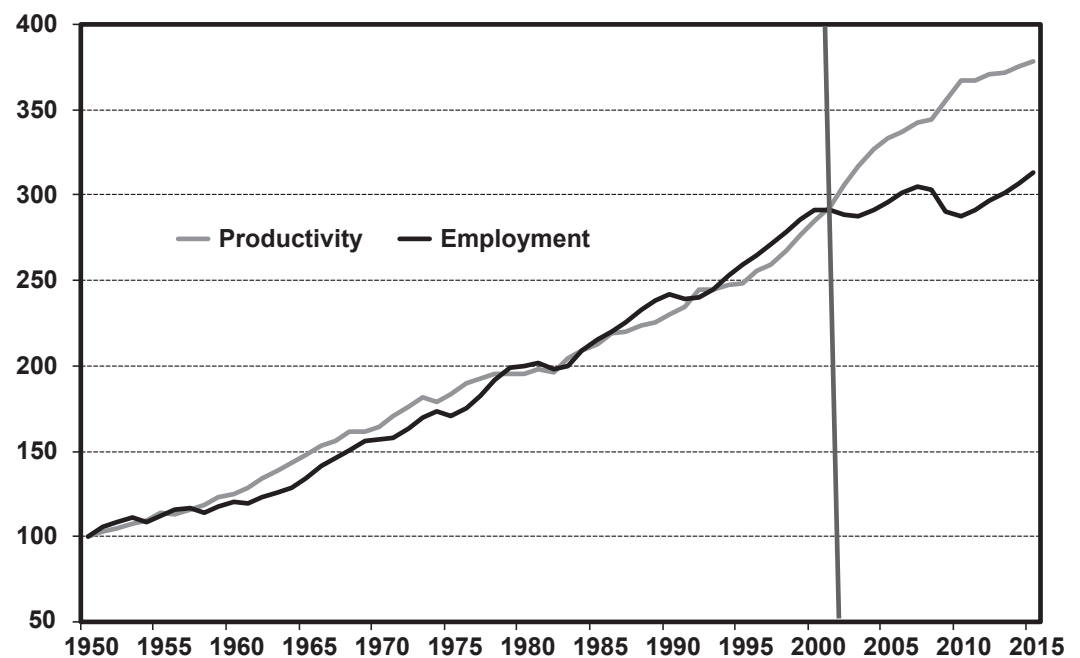
A shutdown of trade would cause the poorest 10% of consumers to lose almost two-thirds of their purchasing power, far more than those with high income, who would lose around 28%.

Roughly one-fifth of the jobs lost in manufacturing (around 1.2 million jobs) were wiped out as a result of direct competition from China.

The bulk of job losses in manufacturing and other middle-income sectors is due to advances in technology and automation. A full 3.7 million jobs lost in manufacturing since the start of the millennium may be due to technological progress.

But the bulk of job losses in manufacturing and other middle-income sectors is due to advances in technology and automation, which have encroached greatly not just on manufacturing but also on other routine-type jobs, such as clerical work, bookkeeping, and customer service. A full 3.7 million jobs lost in manufacturing since the start of the millennium may be due to technological progress. This is starkly observed in the widening gap between gains in productivity and employment: since the 1950s, the two moved together as higher productivity fueled economic growth creating even more jobs (Figure 5). However, early in 2000 the two lines began to diverge and, though productivity growth has experienced a sizable downshift over the past four years, the yawning gap of separation between employment and productivity gains continues to persist.

FIGURE 5
Productivity and Employment Part Ways
(labor productivity, nonfarm employment, Index, Jan 1950=100)



While we are not going to un-invent technology and unravel world trade, we should do a better job at distributing the benefits of technological progress and globalization.

It is unlikely that the jobs that were destroyed by the confluence of forces of technology, automation, trade, and globalization can be replaced. In the heydays of the housing boom, the displaced – mostly men with low levels of education – either dropped out of the labor force or looked for jobs in other sectors, primarily construction. The subsequent collapse of the construction sector during the crisis revealed more starkly the plight of the lower middle-class. The anger is directed primarily at trade and immigration rather than technology, but this is understandable: it is easier to rail against globalization than against the robots that stole your job!

It goes without saying that more should be done to change this trajectory and alleviate the concerns of the broad swath of population that has indeed been left behind. While we are not going to un-invent technology and unravel world trade, we should do a better job at distributing the benefits of technological progress and globalization. More efforts should be made to assist people who have lost their jobs to retrain, re-educate and re-acquire new skills. A system of wage insurance may also help incentivize the workers who have lost good-paying jobs to take a less well-paid one. Regulatory reform is necessary to increase competition and dynamism and to spur new business formation, creating more good-paying jobs.

Where Do We Go from Here? The Road Ahead

Our long-term problems notwithstanding, the good news is that in the near term, the current U.S. expansion is set to continue. The pace and breadth of it will be similar to the uninspiring lackluster performance we have become accustomed to since the start of this recovery, but growth will continue as recessionary fears – which loomed large at the start of the year – have thankfully receded. 2016 is shaping up to be a dud given the pallid performance of the economy in the first half of the year. But the next two years will witness slightly more robust growth than the current year, with growth averaging around 2.1%.

Our long-term problems notwithstanding, the good news is that in the near term, the current U.S. expansion is set to continue.

Outlook for Real GDP: Same Ol' Same Ol'

2016 started with a whimper, but will likely end with a bang. Gloom and doom descended around the world early in the year as many pondered the fate of the recovery and fresh new fears surfaced about an imminent recession. A number of adverse events combined for a dour outlook: China's economy seemed to have ground to a halt, the Fed's first rate hike spiked volatility in equity markets, emerging market wobbled, commodity prices plunged, and business confidence plummeted.

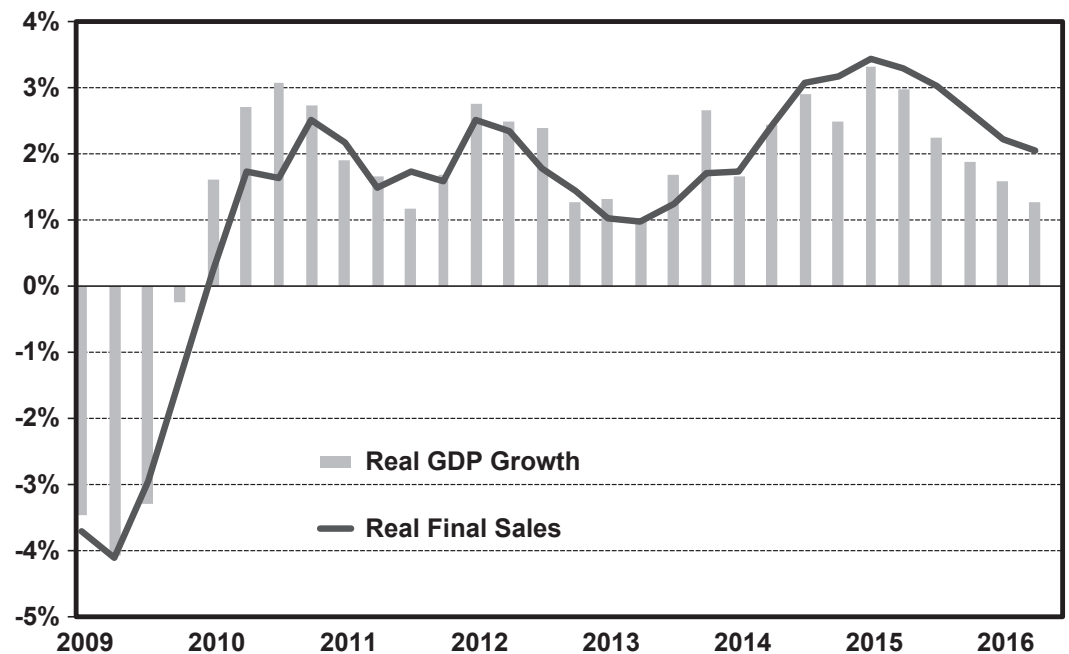
We warned back then that while the world economy was facing enormous challenges, the recovery had a few more inches to crawl and more room to grow. Indeed, most of the early-year concerns have now largely dissipated: China's slowdown appears to be less ominous, commodity prices have rebounded, and financial markets have survived – due in large part to central bank intervention – the early-year panic.

However, as we expected, real GDP growth in the first half of the year was paltry, coming in at 0.8% in the first quarter and 1.4% in the second quarter. In line with our expectations, inventory drawdown weighted heavily on growth, subtracting 0.3 percentage points in the first quarter and a full 1.16 percentage points in the second quarter. Indeed, real final sales have grown more robustly over the past four quarters than real GDP because of this inventory correction and the adverse impact from trade (Figure 6). Business fixed investments also lopped off a large chunk of growth in the second quarter, with residential investments dropping by a sizable 7.7%. Indeed, without a robust contribution from consumers, real GDP growth would have been much more depressing than the meager 1.4% it managed to eke out.

We do expect a pick-up in economic activity for the balance of the year, with growth in the third quarter firming up to around 2.2 percent and fourth quarter growth coming at around 2.3 percent. This will mean that, at a pace of 1.5 percent, growth in 2016 will be the weakest in the last three years, falling short of the 2.6% pace of 2015 and 2.4% in 2014. We expect consumer spending to continue to account for the bulk of growth going forward, but modest improvements should occur elsewhere as well. Nonresidential construction spending should improve moderately now that the collapse from the energy sector appears to be behind us. Residential construction should also pick up in response to a persistent lack of supply and improved demand. Business investments in equipment continue to remain weak, but they will likely be less of a drag on growth over the next few quarters and even improve marginally. The rest of the year and beyond should also benefit from a smaller drag from inventory drawdown, modest public spending, and a small, albeit likely temporary, improvement in net exports.

We expect a pick-up in economic activity for the balance of the year.

FIGURE 6
Final Sales Have Surpassed GDP Growth: Inventories and Trade Are to Blame
 (real GDP growth and real final sales, annual rate, percent)



Overall, this recovery cycle, despite its longevity, will remain one of the weakest on record. We expect growth to be positive but below trend for the next couple of years, coming in at 2.2 percent in 2017 and 2.0 percent in 2018.

Overall, this recovery cycle, despite its longevity, will remain one of the weakest on record. We expect growth to be positive but below trend for the next couple of years, coming in at 2.2 percent in 2017 and 2.0 percent in 2018. If this is indeed the case, the economy would have expanded by an average pace of 2.1% for nearly a decade (from 2010-2018), far below the average rate of 3%-3.5% recorded over the last fifty years.

Far more damaging is the lasting impact this decade will have on potential output: U.S. potential GDP growth (the output the economy can produce at full capacity) appears to have settled at a permanently lower trajectory. Growth in potential output has averaged a paltry 1.5% per year during this recovery, less than half of the 3.3% rate recorded from 1960-2007. According to the CBO projections, things are unlikely to pick up anytime soon: potential GDP growth is expected to nudge up a bit from current levels, but average 1.8 percent over the next decade. This matters greatly to standards of living: at current pace, the income for average Americans would grow by nearly 50% over a 30-year period, while they would double if we grew at the historical rate.

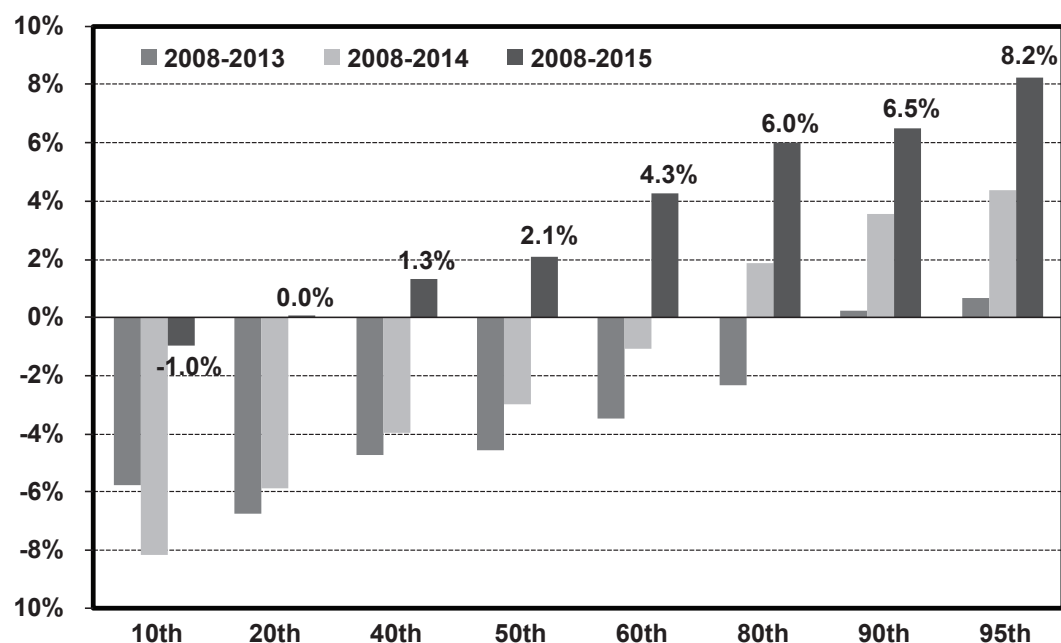
The Atlas Curse: Consumers Powering Growth

Much like the Greek god Atlas, the U.S. consumers have, by and large, shouldered the main progress of this recovery these past couple of years. Indeed, consumer spending grew by 2.9 percent in 2014 and 3.2 percent in 2015, above the growth of real GDP, which came at 2.4 percent and 2.6 percent, respectively. Consumers pulled back considerably at the start of the year when the U.S. and the world economy appeared wobbly. But things perked up pretty nicely in the second quarter when consumer spending grew by a brisk 4.4% rate. Demand for durable goods rebounded strongly, but more importantly, spending on services and non-durable goods also rose at fastest pace in over two years (spending on non-durables was the most robust since the start of the recovery).

This should not come as a complete surprise since the fortunes of the U.S. consumers have improved considerably as the recovery has progressed. Steady employment gains, low gasoline prices, and much improved balance sheets, all help. Perhaps the best news came from the Bureau of Census annual report on income and poverty, which showed that households real median wealth grew in 2015 by a staggering 5.2% – the highest ever since records began back five decades ago. Though real median income is still below the peak set in 1999 (as discussed earlier in this report), an encouraging sign is the breadth of gains. Indeed, with the exception of earners in the lowest quintile, all other groups have higher income now than in 2008. The recovery took a while to spread and was uneven: the top 5% of earners saw their income surpass their 2008 level in 2013; by 2014 the gains had spread to the top 20% of earners. In 2015, real income had exceeded the pre-recession level for all but the bottom decile (Figure 7). Overall, while it has taken a long time, there are now clear signs that the recovery is finally catching up with the lower half of the income distribution.

Though real median income is still below the peak set in 1999, an encouraging sign is the breadth of gains. With the exception of earners in the lowest quintile, all other groups have higher income now than in 2008.

FIGURE 7
Income Growth Is Finally Spreading to the Bottom Half of Distribution
(real household income by percentile, percent change)



Other consumer-related metrics have also fared quite well. Household balance sheets appear rock-solid: the debt-service burden (proportion of after-tax income earmarked to pay debt) is the lowest in over 30 years, reflecting in part both the deleveraging that occurred during the crisis and rock-bottom interest rates. Household net worth is now \$21.3 trillion (31%) higher than the pre-recession peak (Q2 2007) and a staggering \$34.6 trillion (63%) above levels during the trough of the recession (Q1 2009). In real terms, household wealth is up 15% compared to the pre-crisis peak. Most of this is due to impressive gains in equity markets, but home equity wealth has also managed to recover quite nicely from its spectacular collapse during the housing crisis. Of the roughly \$7.5 trillion losses in homeowner equity, roughly \$6.7 trillion has been recovered. This is undoubtedly good news as home equity gains are broader based and tend to boost spending more than improvement in financial wealth, which normally accrue to those at the top of the income distribution.

Of the roughly \$7.5 trillion losses in homeowner equity, roughly \$6.7 trillion has been recovered. This is undoubtedly good news as home equity gains are broader based and tend to boost spending more than improvement in financial wealth, which normally accrue to those at the top of the income distribution.

Wage growth has also firmed up, though not at the same pace as in previous recoveries. Average hourly earning growth has nudged up to 2.5% lately from around 2% a year earlier – an improvement, but not where we should be had this been a normal recovery (wages grew by an average of 4% in normal expansions). We do expect wages to continue to increase over the forecast horizon as the labor market continues to tighten. In addition, minimum wage hikes voted on by an increasing number of local governments have benefited roughly 17 million workers. Though across-the-board minimum wage increases are not the best tools to boost income (they tend to lead to higher levels of unemployment especially for the low-skill, low-paid jobs), they will boost income for those jobs that can survive them.

Going forward, we expect consumers to remain the primary driver of this expansion. Some areas of spending (motor vehicle sales, for example) are a bit outdone at this stage, and some pullback is expected. However, spending on services and non-durables should expand more confidently. We expect consumer spending to grow by 2.7% this year, by 2.5% in 2017 and by 2.4% in 2018.

Labor Markets: Towards Quasi-Full-Employment

The labor market has continued to be a tailwind for U.S. consumers. A hefty 2.7 million jobs were added in 2015, the unemployment rate has fallen from a crisis high of 10% to a current 5%, and even the broader measure of unemployment (U-6), which includes the discouraged and marginally attached workers, has declined from a recession high of over 17% to a current 9.8%. Payroll employment has swelled by 15 million jobs since the dark days of the recession and by 6.3 million compared to the pre-crisis level. More encouragingly, there has been a meaningful improvement in the mix of full-time vs. part-time jobs: full-time employment is now almost 2.9 million above its 2007 level, while part-time jobs have edged down by nearly 1 million since the end of the recession.

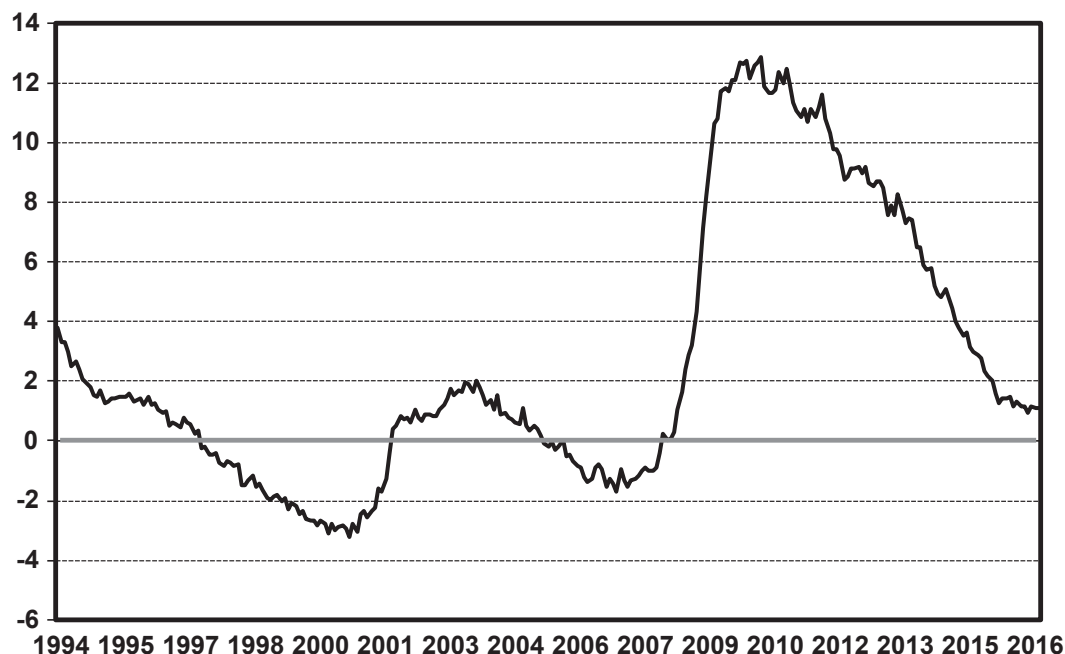
The expansion is now mature, and some moderation in job growth at this stage of the business cycle is not unusual.

As we expected, the pace of job formation has edged down this year, a trend that we anticipate will continue for the remainder of this recovery. The expansion is now mature, and some moderation in job growth at this stage of the business cycle is not unusual. Indeed, payroll employment grew by an average of 230,000 jobs per month in 2015; this pace has downshifted in the current year to 178,000 and will likely moderate even further over the next couple of years. Nonetheless, this rate would be sufficient to eliminate the remaining labor market slack – which we estimate to be around 0.8% (or 1.25 million) – as the economy moves towards quasi-full employment (Figure 8).

We use this term (quasi-full employment) to highlight the fact that the labor market continues to be plagued by long-term secular issues, some of which we outlined above. The most jarring is the drop in labor force participation rates among prime-age workers, those between 24-54 years old; though this has recovered a bit from a trough of 80.6% recorded a couple of years ago, the improvement is only marginal and labor force participation rates for this age cohort currently stand at 81.5% – below the 84% rate of the late 90s. Had the labor force participation rate remained the same for this age cohort as during the 2000-2007 period, there would be 2 million more workers in the labor force than there are currently.

We expect the labor market to continue to expand over the next two years, though at a more moderate pace than in 2014 and 2015. Job creation is expected to average 173,000 jobs per month this year (which means the economy would have added 2.1 million jobs in 2016), 160,000 in 2017, and a more modest 148,000 in 2018.

FIGURE 8
Labor Market Slack is Disappearing: Economy Nearing Full Employment
 (millions of people)



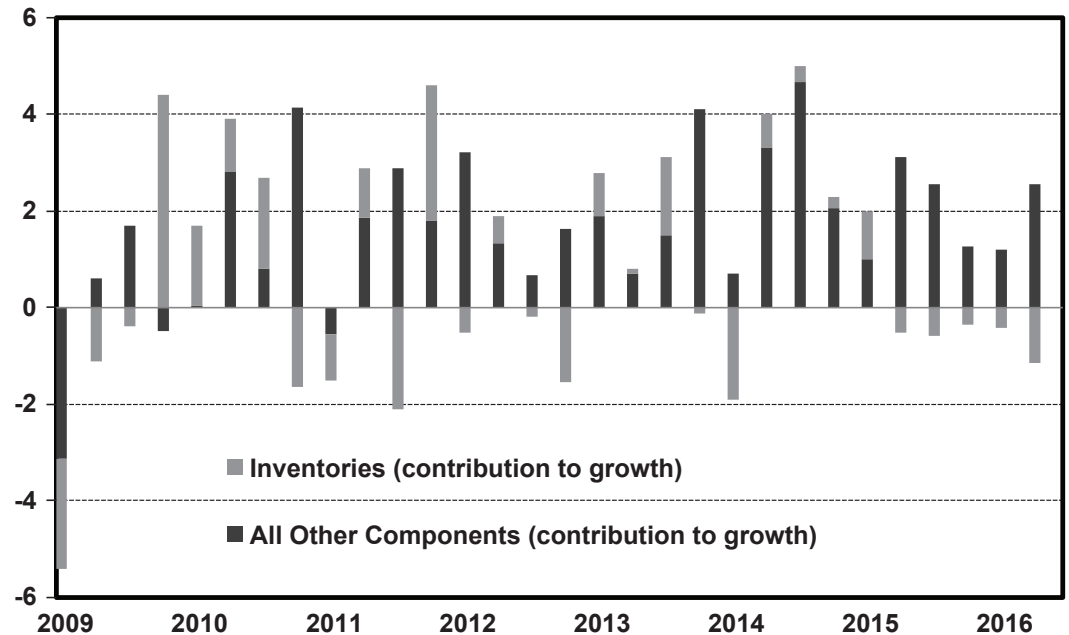
Tough Going: Business Outlook

One of the main reasons why this recovery has not been more robust, especially in the past couple of years, has to do with a softening outlook for business spending and investments. Business fixed investments have fallen for three straight quarters: of all the sub-components of business spending, only investment in Intellectual Property remains relatively robust, but this category only accounts for a third of business investments. Most of this is undoubtedly due to the collapse of the energy sector: investments in mining, wells, and other energy-related structures have declined from around \$134 billion in 2014, to a mere \$48 billion in the second quarter of this year – a plunge of nearly 65%. Continued dollar strength and a struggling global economy has also dimmed the outlook for manufacturing and companies with global exposure: investment in Equipment has dropped in four out of the last five quarters. The inventory cycle has not helped – inventories have subtracted between 0.36 and 1.16 percentage points of real GDP growth over the past five quarters (Figure 9).

Businesses have also struggled with lackluster productivity growth over the past five years. Productivity grew by an average annualized rate of 0.5% since 2011, far below the historical rate of around 2%. The latest numbers show that productivity growth actually declined in Q2 2016. While it is hard to understand and explain productivity slumps, a few factors may have contributed to the recent freeze: fewer start-up firms, less capital investment, and yes, an ultra-loose monetary policy, which has lifted asset prices indiscriminately, making it harder to discern productive projects from unproductive ones. But whatever the reason, slow productivity growth matters: should the current trend continue, standards of living by 2021 will be 16 percent lower compared to a scenario of 2% historical average growth. Moreover, slow productivity growth combined with a tighter labor market is certainly eating away at corporate profits which have fallen on a year-over-year basis for three straight quarters.

Productivity has grown by an average annualized rate of 0.5% since 2011, far below the historical average of around 2%.

FIGURE 9
Inventories Have Been a Huge Drag on Growth in the Last Five Quarters
(contribution to growth, percentage points, annual rates)



Our outlook for business investments and expansion is quite modest, though we expect some pick up from the recent slump.

Our outlook for business investments and expansion is quite modest, though we expect some pick up from the recent slump. The worst for the energy sector appears to be behind us: the rig count – which bottomed out at 404 rigs in late May – has clawed back to a current 539 as energy prices have stabilized and risen from their decade-low values. We expect investment in structures to contribute to growth in the next two years, growing by 5.6% in 2017 and 4.3% in 2018. A strong dollar and sluggish global recovery will continue to weigh on corporate profits, but less so over the next year given the very gradual pace of interest rate hikes in the U.S. and a slightly brighter global outlook than earlier in the year. Investment in Equipment – the largest component of Business Fixed Investments – is expected to improve from a -2.6% rate in 2016, to 2.1% in 2017 and 2% in 2018.

Risks

U.S. Election: Waiting for the Curtain to Fall

This election cycle is shaping up unlike any other in recent memory: anger rather than hope seems to fuel the electorate, political rancor is at fever pitch, and the two major party candidates enjoy the highest unfavorable ratings ever recorded in a presidential election in recent history. The campaign season has dragged on for what seems to be an eternity, and the rhetoric at times has plummeted new lows, fueling uncertainty and anxiety. A full 61% of respondents in a Bankrate survey identify the presidential election as the "biggest threat to the economy" (terrorism was a distant second with 12%). Most are not happy with their choices: a full 65% of small business owners are unhappy with both Clinton and Trump on how they are addressing the issues faced by small businesses. There are also broad disagreements as to who would be better for the economy: small business owners tend to favor Trump (59%) to Clinton (41%), while the reverse is true for Fortune 500 CEOs with 58% backing Clinton, compared to Trump's 42%.

Political uncertainty is always a risk in election years and this cycle is unquestionably unusual. But our view is that uncertainty is a bit overdone and the impact of the election on the market and the broader economy will likely be more muted than what the intensity of the campaign rhetoric suggests. No matter who wins, he or she will need to work with Congress to enact legislation. In this give-and-take process, most of the outlandish proposals offered during the campaign are either scrapped or significantly softened, and this time will be no different. Having said that, we do expect the election cycle to adversely impact business decisions, especially when it comes to capital outlays. Indeed, a full 26% of CFOs surveyed by Duke University say they have delayed spending plans specifically because of the uncertainty related to the presidential election. The vast majority of them plan to hold off investments even after election is over no matter who wins, until more clarity emerges on the policy path of the new administration.

Our view is that uncertainty is a bit overdone and the impact of the election on the market and the broader economy will likely be more muted than what the intensity of the campaign rhetoric suggests.

Though neither candidate may get their "wish-list" if elected, it is instructive to take a closer look at their policy proposals. Let's start with the things they agree on. Both have taken strong anti-trade positions rejecting the Trans Pacific Partnership (TPP) agreement and have questioned the North American Free Trade Agreement (NAFTA). Of the two, Mr. Trump's position on trade is the most aggressive as he has threatened to renegotiate trade deals and impose tariffs on goods produced abroad. Mrs. Clinton's position is more nuanced though she has had to walk back her support for the TPP, which she helped negotiate.

The two candidates have also vowed to preserve Social Security and Medicare benefits and to make no changes to the programs, despite the fact that they account for an increasing share of government spending – 41% last year up from 36% in 2011. Mrs. Clinton would like to expand the benefits for low-income retirees and proposes to pay for this by increasing taxes on the top earners. Mr. Trump plans to address the demographic-induced solvency gap of the programs by cutting "waste and fraud" from the system (it goes without saying that this alone would not fix the problem). It is a pity that both candidates have decided to stay away from the daunting and necessary task of overhauling these programs to ensure their longevity.

Infrastructure spending seems to be, uncharacteristically, another area of agreement. Mrs. Clinton has proposed a \$275 billion infrastructure plan – stretched over five years – which would be financed, in part, through revenues from a business tax overhaul. She also supports a \$25 billion infrastructure bank that would provide direct loans, loan guarantees, and other types of credit enhancement to support private sector infrastructure spending. Mr. Trump's proposal on infrastructure is a bit more vague, though he has suggested that Clinton's plans are too timid and do not go far enough. In public appearances and tweets, he has advocated spending double the amount of money proposed by Clinton, which places the price tag for his infrastructure plans at around \$550 billion.

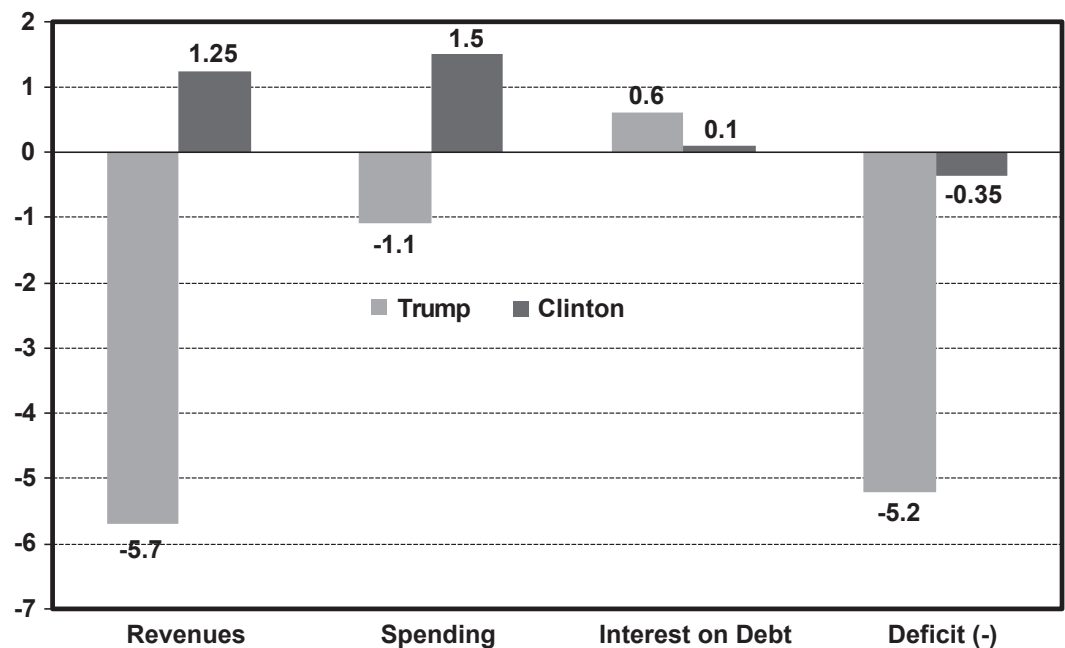
The candidates' sharpest differences emerge from their proposals on taxes. Mr. Trump has offered a complete and radical overhaul of the current tax system, while Mrs. Clinton has proposed some tinkering around the edges. Under the Trump plan, individual tax brackets would shrink from the current seven to only three (12%, 25% and 33%); standard deductions would rise; the amount of itemized deductions would be capped at \$200,000; capital gains and dividends would be taxed at 20%; and federal estate and gift taxes would be eliminated. On the business side, his plan proposes a reduction of corporate taxes from 35% to 15%; the repeal of most business tax breaks; a one-time repatriation tax of 10% for corporate profits held overseas; and the taxing of carried interest as ordinary income.

Mrs. Clinton's plan is more modest and hinges primarily on raising rates on the top earners. She would impose a 30% minimum tax on taxpayers with income above \$2 million (phased in starting at \$1 million), a version of the "Buffett Rule." A 4% surcharge would be imposed on earners with adjusted gross income above \$5 million, effectively increasing the top marginal tax rate to 43.6%. Estate taxes would rise from 40% to 45% for estates under \$10 million, establishing higher rates for higher valued estates, topping off at 65% for estates valued at more than \$500 million. Her plan would also tax carried interest at the rate of ordinary income. She would also adjust the schedule for long-term capital gains by raising rates on medium-term capital gains to between 27.8% and 47.4% (this latest point complicates the tax code unnecessarily and seems to be a solution in search of a non-existent problem).

Unfortunately, the national debt – which is projected to rise by \$9 trillion over the next decade – will increase even faster under each candidate's plan, though more so under the Trump plan.

Unfortunately, the national debt – which is projected to rise by \$9 trillion over the next decade – will increase even faster under each candidate's plan, though more so under the Trump plan. Mr. Trump's tax overhaul will cause a reduction in tax revenue of around \$5.7 trillion over the next ten years. He has proposed a few spending cuts (Affordable Care Act, Medicaid, and non-defense spending) which would cumulatively combine for around \$3.1 trillion, but he has countered that with additional spending of around \$2 trillion in infrastructure, defense, veterans, childcare. In total, over a ten-year period, his spending cuts come to around \$1.1 trillion; interest costs to service the debt (compared to current law) would rise by around \$600 billion. Overall, his plan will increase the debt from its current baseline by a total of \$5.2 trillion over the next decade (Figure 10).

FIGURE 10
Debt Increase Under Both Plans
(estimated impact on budget deficits, 10-year horizon, trillions of dollars)



In contrast, Mrs. Clinton would raise both revenue and spending over the next decade, though in a more balanced way. Under her plan, tax revenue would increase by roughly \$1.25 trillion and her spending by \$1.5 trillion (this includes a \$500 billion on education, \$300 billion on infrastructure, spending on paid family leave, etc.). Interest payment on the debt will rise by around \$100 billion. Tallying it all up, under Mrs. Clinton's plan, the national debt will rise by an additional \$350 billion over the next decade relative to the \$9 trillion projected increase.

The Fed: Promises ... Promises ...

It finally happened: after much dithering and introspection, pre-announcements and pullbacks, the Fed raised the benchmark interest rate by a quarter basis points in December 2015 for the first time in nine years. It then promised that this action would be followed by four more rate hikes in the current year. None have happened so far. On first brush, it seems that everything in the world has conspired to stay its hand. The expected March hike was eschewed due to financial turbulence early in the year as panic set in about the global outlook, the path of interest rates, and the collapse in oil prices. By June, concerns about Brexit and its global implications were cited as reasons for staying put. By September, a mini-tantrum in financial markets caused it to pause yet again, though there were fewer reasons for doing so particularly since the Fed officials spent the later part of summer raising expectations for a September rate hike. Soft inflation numbers and a weaker-than-expected employment report were the main culprits, it appears, but we would not be too surprised if, at this point, they cited the weather as an impediment to a rate hike!

Our view has consistently been that the Fed may find it harder to escape the zero-bound than what it originally thought. It took decades to escape it after the Great Depression. Japan is still mired in what appears to be a low-growth, low-inflation, low-rate slump, which it has struggled to escape for more than two decades. A number of forces – demographic trends (an ageing population), low productivity gains, low investment in capital stock, and a higher global demand for safe assets (a saving glut) – have all combined to depress the real natural rate of interest.

That's why our expectations for interest rate hikes have been consistently lower than the Fed (and the consensus) and the path to normalization more gradual. Nonetheless, we have argued that the Fed has stayed excessively accommodative for far too long: it should have ended its QE program and begun the tightening of interest rates at least one to two years earlier than when it eventually got around to doing these things. That would have put it on a gradual path of tightening sooner and without many of the market distortions that followed. Easy monetary policy invariably leads to excessive risk taking and asset price misalignments in the financial sector. There is now ample evidence that much of this has already occurred: witness the frenzied M&A activity, record-high margin debt, and the massive share-buybacks that have occurred over the past few years.

We expect the Fed to hike interest rates only once this year, in December, and have penciled in two more rate hikes next year, and two more in 2018. As we have articulated for a while, the path to normalization will be much shallower and gradual than what the Fed officials had envisioned. When all is said and done, we expect interest rates to top off at 2.5% - 2.75% range, lower than the median range projected by the Fed.

Chugging Along ... The Global Economy

The fortunes of the global economy have improved marginally since the start of the year. Back then, there was much genuine fretting that the fragile recovery that had progressed in fits and starts over the past seven years was precariously perched on the verge of a slump. And this was before Brexit, which brought on more anxiety, a worldwide financial market panic, and a prevailing sense that all the dour news would deliver the final death punch to the global recovery.

Thankfully, the sense of being on edge of a precipitous fall has dissipated somewhat, at least for now. Chinese economic growth has slowed due to the continued adjustment and rebalancing of the economy, but the deceleration is nowhere as sharp or as fast as feared early in the year. Higher energy prices have provided some respite for commodity exporters, and Brexit-related fallout

Our view has consistently been that the Fed may find it harder to escape the zero-bound than what it originally thought. That's why our expectations for interest rate hikes have been consistently lower than the Fed (and the consensus) and the path to normalization more gradual.

We expect the Fed to hike interest rates only once this year, in December, and have penciled in two more rate hikes next year, and two more in 2018.

The overall global outlook is still fraught with a number of risks and sentiment is frayed so much so that any adverse event, large or small, is likely to produce amplified shockwaves around the world.

seems to be contained for the time being. Though much uncertainty remains about the terms of the negotiated exit of the UK from the EU – a process that will take a number of years to complete – in the short term, the Eurozone economy should manage to deliver moderate growth. Russia and Brazil – mired in a deep recession over the last couple of years – seem to have turned a corner with modest growth projected to return in both countries in 2017.

Having avoided a worst-case scenario is as far as the good news goes. The overall global outlook is still fraught with a number of risks and sentiment is frayed so much so that any adverse event, large or small, is likely to produce amplified shockwaves around the world. Start with the Eurozone, where it seems the risk of another shock is alarmingly high: Italy's banks are woefully undercapitalized burdened by around \$400 billion of souring loans, Portugal's economy is struggling with slow growth and unsustainable debt-to-GDP ratio (130% of GDP), and Greece continues to languish. But perhaps the most damaging is political risk: France, Germany and the Netherlands all go to the polls next year, precisely at the time when the terms of the divorce from the UK will begin to be negotiated. Anti-EU sentiment is high throughout Europe as austerity measures (largely prescribed to struggling economies during the sovereign crisis) have throttled an already weak growth in these countries. The botched handling of the immigrant crisis has further inflamed sentiment, ushering in the rise of populist parties across Europe.

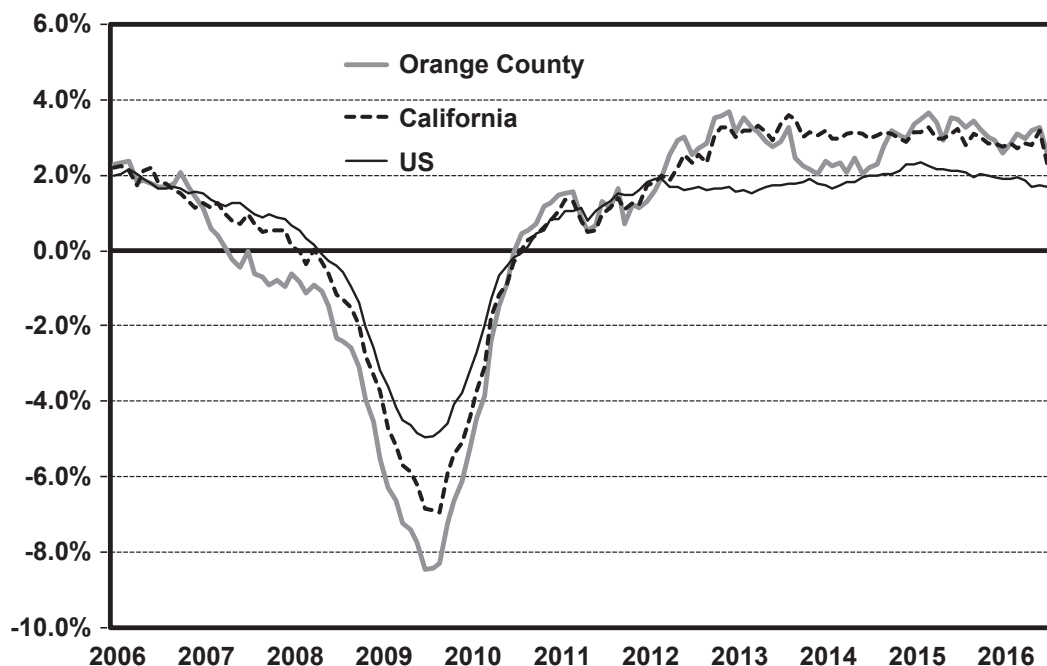
Our outlook for the global economy is little changed from our earlier forecast: we expect the global economy to continue to muddle along at below-trend growth rates over the forecast horizon, expanding by 3.1% in 2016 and 3.2% in 2017 – below its historical average of 3.5%.

ORANGE COUNTY AND SOUTHERN CALIFORNIA

Orange County and Southern California continue the trend of steady growth from 2015, and employment has grown faster here than in the rest of the nation, as shown in Figure 11. While the Professional & Business Services and Leisure & Hospitality sectors continue to hire robustly, the construction sector has now become a significant driver of employment growth, accounting for more than 25% of new payroll jobs in Orange County thus far in 2016. Unemployment rates are falling, and we forecast that there is still room for them to fall further. Our survey of local business sentiment also indicates continued optimism about the future. Overall, we expect steady growth in the local economy in 2017.

Orange County and Southern California continue the trend of steady growth from 2015, and employment has grown faster here than in the rest of the nation.

FIGURE 11
Payroll Employment Growth: OC Has Outperformed U.S. and California
(y-o-y percent change)



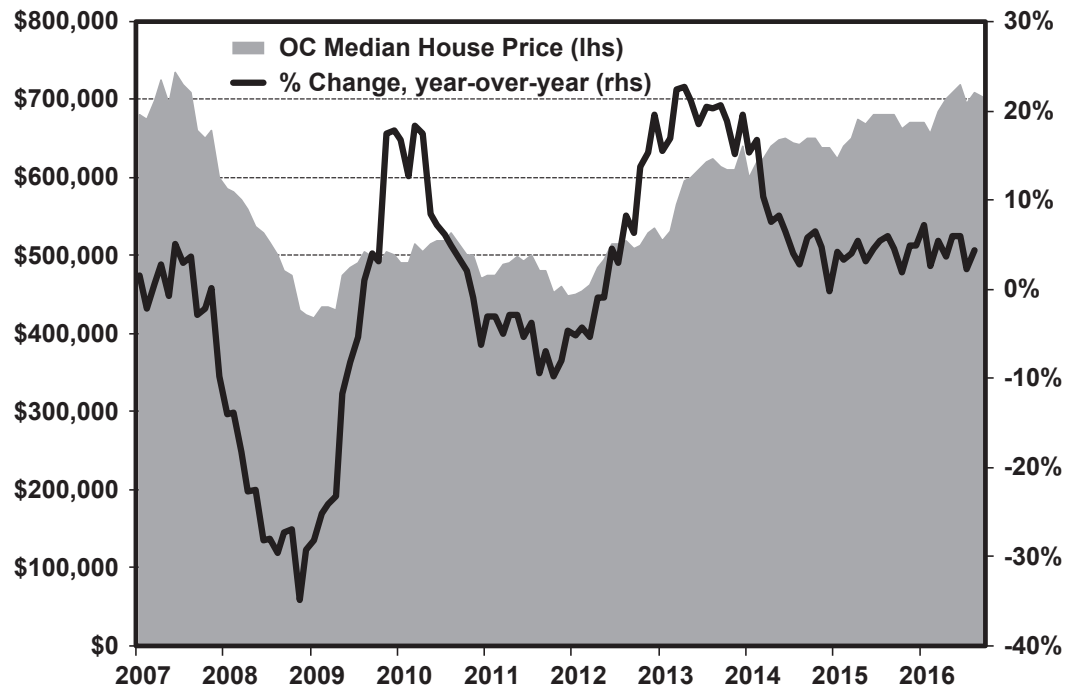
Housing and Construction

Housing prices have recovered nearly all the losses incurred during the Great Recession and are now almost at their previous peaks. Construction, a long-suffering sector of the housing bust, has seen rapid growth in the past year, especially in Orange County.

The median housing price in Orange County is on track to post similar growth in 2016 as in 2015. This is also the case for most of the region. Orange County median home price grew by an annualized rate of 5.2% so far this year, reaching \$705,000 in September – a sturdier pace than the 4.4% growth recorded in 2015 (Figure 12).

Housing prices have recovered nearly all the losses incurred during the Great Recession and are now almost at their previous peaks.

FIGURE 12
OC Home Prices: Almost at Previous Peaks
(CoreLogic OC median home price, level and percent change)



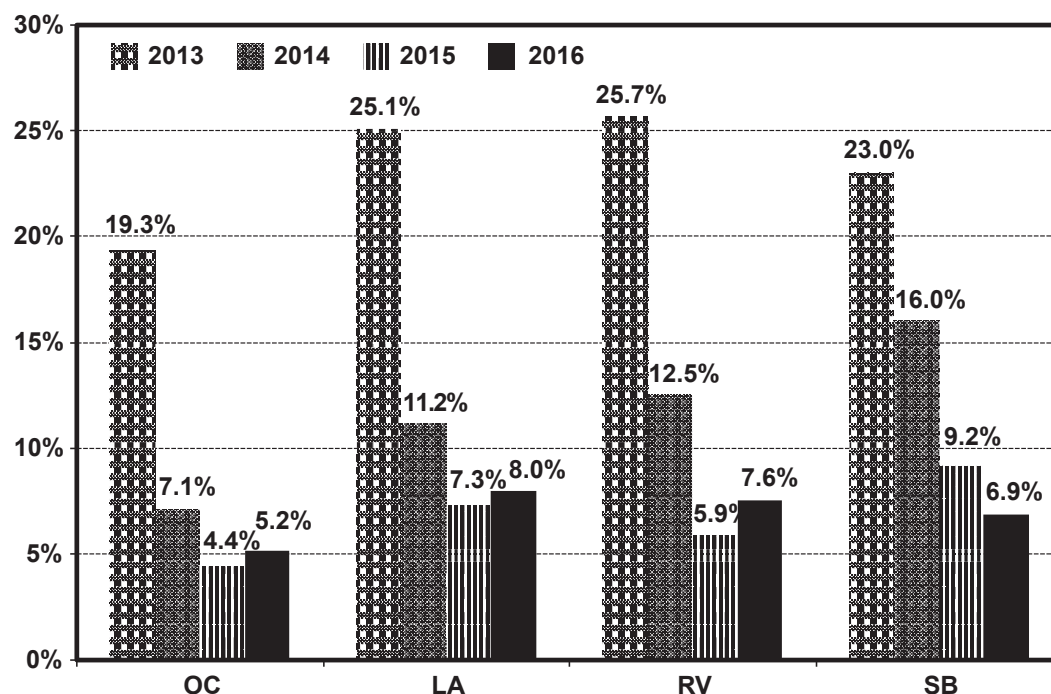
Orange County's home price appreciation has lagged a bit behind the other neighboring counties: so far this year, Los Angeles has led the pack posting an annualized growth in median home price of 8%, followed by Riverside County with 7.6%, and San Bernardino with 6.9%. This should not come as a surprise given that the collapse in home prices during the crisis was much more pronounced in the neighboring counties than in Orange County. Similar to Orange County, home price appreciation has picked up speed in Los Angeles (from 7.3% in 2015 to a current 8%) and in Riverside County (from 5.9% in 2015 to a current 7.6%). Only in San Bernardino has the home price appreciation downshifted a bit, from the 9.2% pace in 2015 to a current 6.9%. As of September 2016, the median home price for Los Angeles County is \$560,000 (compared to a peak of \$605,000); for Riverside, it is \$330,000 (compared to a peak of \$419,000); and for San Bernardino, it is \$287,000 (compared to a peak of \$370,000) (Figure 13).

If the current trends continue, it is expected that the median housing price in Orange County should eclipse the \$735,000 peak (set in June 2007) sometime over the next year.

Historically, home prices tend to be stable or fall slightly in the fourth quarter of each year. Based on this trend, we expect overall housing price growth in 2016 should be fairly similar to that of 2015, though a bit more firm. Having said that, home price appreciation rates should remain below the double-digit (10%-25%) growth experienced in 2013 and 2014. This is expected as the recovery becomes more mature and as home prices near their all-time peaks recorded in 2006 and 2007.

If the current trends continue, it is expected that the median housing price in Orange County should eclipse the \$735,000 peak (set in June 2007) sometime over the next year. Similarly, Los Angeles County may also reach its peak median price of \$605,000 (recorded in August 2007) next year. Riverside and San Bernardino counties home prices are still quite a ways away from their peak of \$419,000 (in June 2006) and \$370,000 (in January 2007), and it will take quite a bit more time for them to recover those values.

FIGURE 13
Home Price Appreciation Has Moderated for All SoCal Counties
 (year-over-year, percent change; annualized growth, ytd in 2016)



Lower mortgage rates and sustained growth of the regional economy likely contributed to the continued growth in home prices. Though the Fed raised the federal funds rate by 25 basis points in December 2015, 30-year mortgage rates declined in 2016 from a 3.85% average rate in 2015 to 3.58% so far in 2016, reflecting weakness in the global and domestic economies. Mortgage rates in early October averaged 3.42%, which is close to the record low of 3.31% in November 2012. While markets are becoming increasingly concerned about another Fed rate hike in December, mortgage rates will continue to remain near historical lows because, as we argue in the national report, the equilibrium interest rate is much lower today than in years past.

Construction activity continues to ramp up in Orange County even faster in 2016 than the previous year, surpassing that of the neighboring counties. Construction employment in Orange County has risen at an annual rate of 11.2% so far in 2016 to 100,550, which is faster than the 10.2% growth in 2015. However, construction employment grew only by 2% in Los Angeles County in 2016, compared to 5.5% growth in 2015, and by 4.3% in Riverside and San Bernardino Counties in 2016, compared to 9.8% in 2015. Construction employment in Orange County is now just 6% below its peak in 2006, while construction employment in Los Angeles, Riverside, and San Bernardino counties are down more than 25% from their peaks.

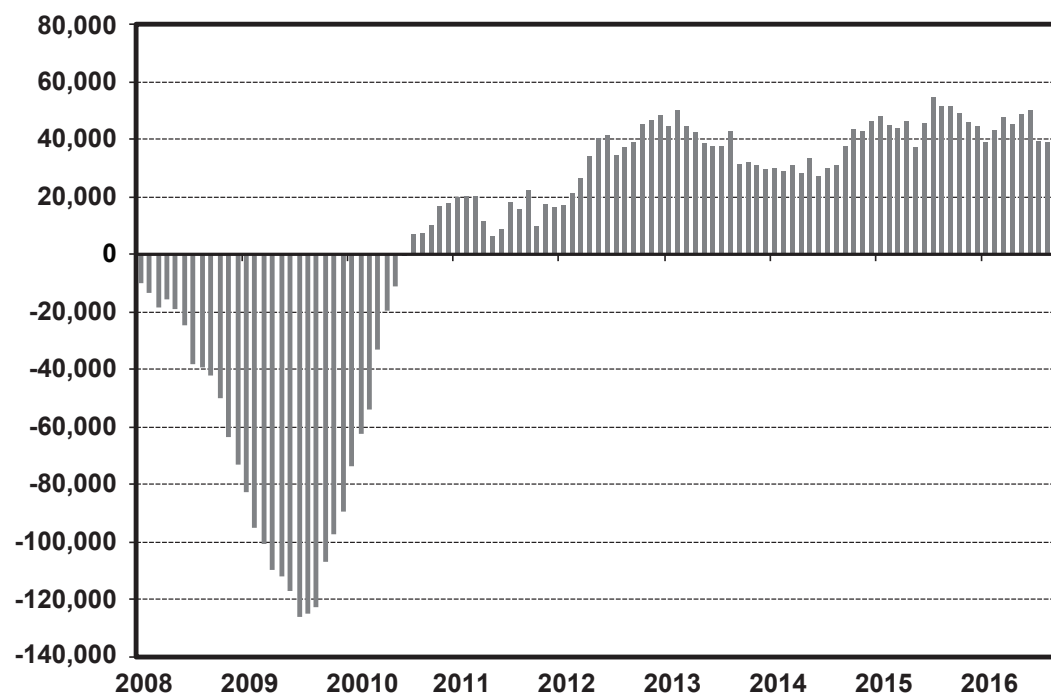
Construction permits in Orange County have been rising rapidly in tandem with employment in the construction sector. So far in 2016, there has been an average of 1,127 permits per month, up 18.3% from 953 permits per month in 2015. Permit growth in surrounding counties has cooled so far in 2016. In Riverside and San Bernardino counties, permits have increased by 5.8% to 827 per month in 2016, compared to 782 per month in 2015. Permits actually have fallen by 12.2% from 1,911 per month to 1,677 per month in Los Angeles County. This is very likely a temporary decline as permits had increased 40% between 2013 and 2015.

Construction activity continues to ramp up in Orange County even faster in 2016 than the previous year, surpassing that of the neighboring counties.

The Labor Market: Overview and Forecasts

Labor markets in Orange County and Southern California continue to improve, with the unemployment rate falling and employment rising in all areas. The unemployment rate in Orange County dropped from a 4.5% average in 2015 to a 4.1% average in 2016. Similar declines in the unemployment rate have been observed in the rest of the region. Los Angeles County saw a rapidly falling unemployment rate from 6.7% in 2015 to 5.2% in 2016. The unemployment rate also fell in Riverside County from 6.6% in 2015 to 6% in 2016. Los Angeles County has now joined Orange County in a special club where unemployment rates are lower than the state average of 5.5%. Total payroll employment in Orange County passed its previous peak of 1.525 million (set in 2006) in 2015 and is forecast to grow to 1.582 million by the end of this year (Figure 14).

FIGURE 14
Orange County Payroll Employment
(year-over-year changes, level)

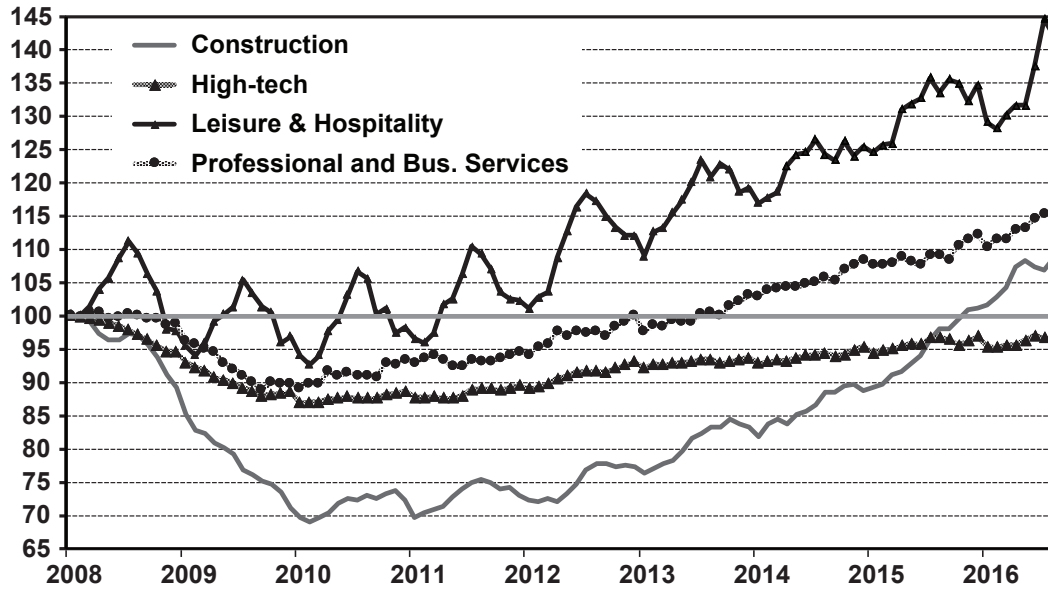


Rapid hiring in the Construction, Professional & Business Services and Leisure & Hospitality sectors has driven much of Orange County's recent growth.

Rapid hiring in the Construction, Professional & Business Services and Leisure & Hospitality sectors has driven much of Orange County's recent growth. Figure 15 shows trends in sectoral employment in Orange County, where the data are indexed to 100 in January 2008 – at the onset of the financial crisis. Employment in Leisure & Hospitality has risen by a staggering 40% since the beginning of the last recession, while employment in Professional & Business Services has risen over 15%. Construction may not have recovered to its peak (reached in 2009), but it has increased by about 9% since 2008 (at the onset of the Great Recession) and is growing rapidly, as detailed above.

FIGURE 15

OC Major Sector Employment Trends: Construction Sector Regained All Jobs Lost in Recession
(index level, Jan 2008=100)



By historical standards, the unemployment rate in Orange County and other Southern California counties still has some room to fall as the economy continues to recover. In Orange County, data is available for 3 recessions dating back to 1990. Table 1 shows the peak unemployment rate in each recession, the lowest unemployment rate during the subsequent recovery, and the average annual change in the unemployment rate during each recovery. The lowest unemployment rate in Orange County was 2.67% in 1999, still well below the 4.09% in 2016. Currently the unemployment rate is only 1% below the peak rate during the 2001 recession and higher than the 3.4% rate achieved during the expansion of 2003-2007.

TABLE 1

The Unemployment Rate in Orange County in Recent Economic Recoveries

	1990	Recession 2001	2007
Peak Unemployment Rate	6.79% (in 1993)	4.94% (in 2002)	9.74% (in 2010)
Lowest Unemployment Rate in Recovery	2.67% (in 1999)	3.40% (in 2006)	4.09% (in 2016)
Average Annual Change During Recovery	-0.69%	-0.38%	-0.94%

While it took the Orange County economy six years to recover the jobs lost in the 1990 recession and two years to recover the jobs lost in the 2001 recession, it took nine years to recover the jobs lost from the 2007 recession.

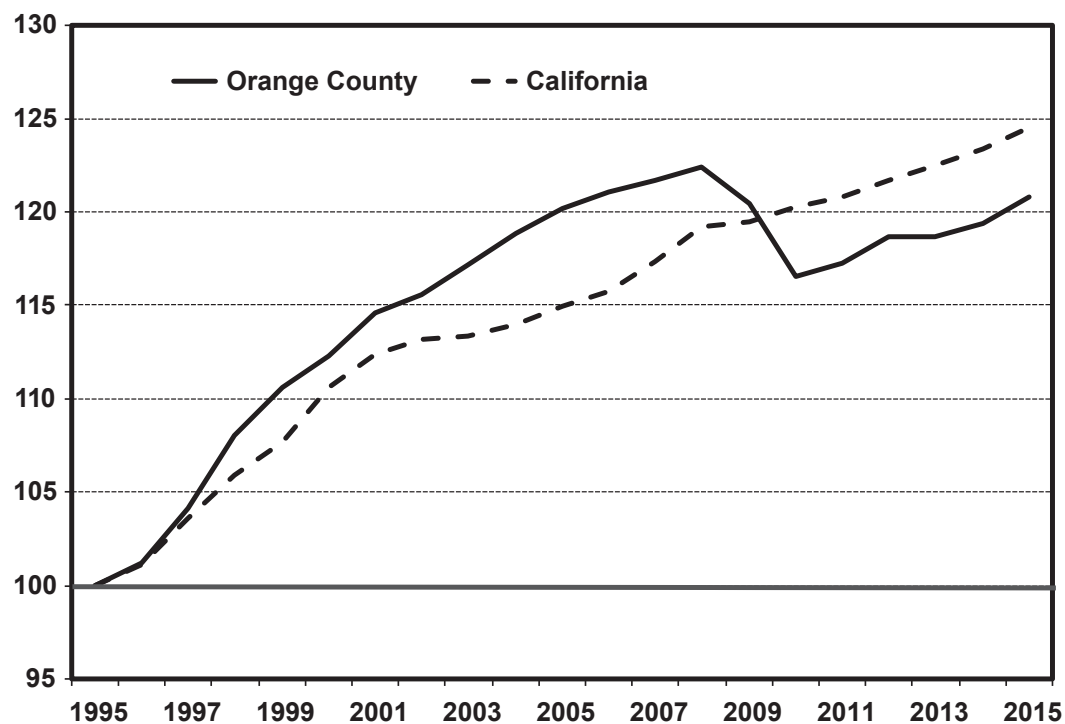
Table 2 highlights more starkly why the recovery from the 2007 recession has felt so lackluster. Despite the nearly 10% unemployment rate and a jaw-dropping 10% decline in payroll employment during the Great Recession, employment growth has been roughly the same during this cycle when compared to the previous two recoveries (in 1990 and 2001). Indeed, while it took the Orange County economy six years to recover the jobs lost in the 1990 recession and two years to recover those lost in the 2001 recession, it took nine years to recover the jobs lost during the 2007 recession. For the recovery to feel strong (or at least normal), the severe job losses during the Great Recession would need to have been followed by much more rapid hiring than the pace we have seen so far, which has simply matched – rather than exceeded – that of the previous two recoveries.

TABLE 2
Payroll Employment in Orange County in Recent Economic Recoveries

	1990	Recession 2001	2007
Total Payroll Employment Loss in Recession	-4.60% (1990-1993)	-0.69% (2001-2002)	-10.33% (2007-2010)
Average Annual Payroll Growth in Recovery	2.90% (1993-2001)	2.01% (2002-2006)	2.32% (2010-2016)
Years Until Payroll Recovery to Previous Peak	6	2	9

The unemployment rate declined more quickly in the recent recovery compared to the past two recoveries, but as we pointed out in last year's report, the labor force participation rate has been falling both in Orange County and across the region (Figure 16). If the unemployed give up searching for work, the labor force shrinks, but the unemployment rate also declines. A falling unemployment rate by itself does not necessarily mean that the labor market is performing better, especially after a severe recession, which is why we rely on both unemployment and employment data to evaluate the Orange County labor market.

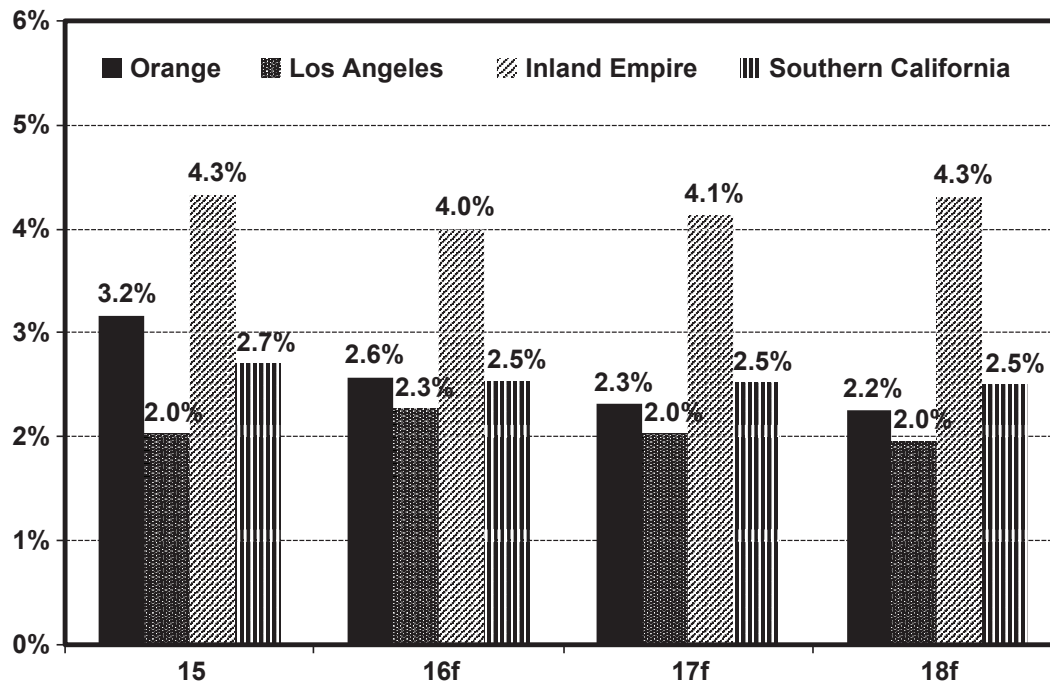
FIGURE 16
Labor Force Growth: Orange County vs. California
(index level, 1995=100)



We forecast that the unemployment rate will continue to fall to 4.0% or below in Orange County in 2017 and 2018. The unemployment rates should decline more rapidly in Riverside and San Bernardino counties where we project rates would fall to 5.8% in 2017 and 5.6% in 2018. Typically, the rate of decline slows as the recovery progresses, so we do not expect the unemployment rate to fall significantly in 2017. We also forecast that payroll employment will grow by around 2%-4% in 2017 across Southern California (Figure 17). Overall, Orange County is forecast to add a total of 37,000 jobs in 2017, similar to 2016. Los Angeles County (89,000 jobs) and Riverside and San Bernardino counties (50,000 jobs) are also forecasted to add a similar number of jobs in 2017 as in 2016.

Orange County is forecast to add about 37,000 jobs in 2017, similar to 2016. Los Angeles County (89,000 jobs) and Riverside and San Bernardino counties (50,000 jobs) are also forecasted to add a similar number of jobs in 2017 as in 2016.

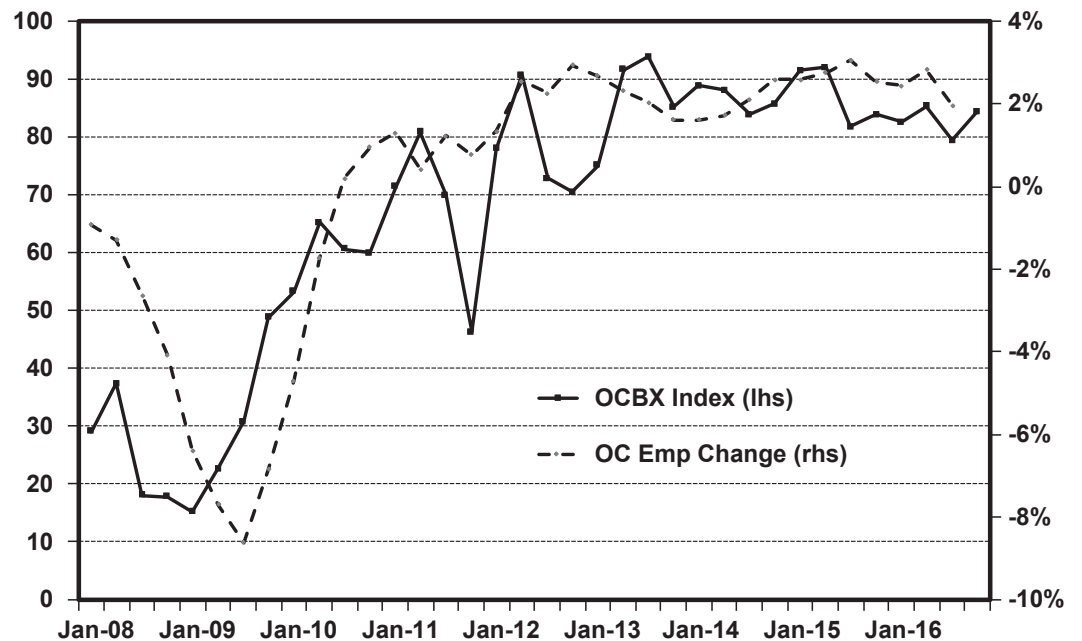
FIGURE 17
Payroll Employment Forecasts
(annual percent rates)



Business Expectations

The Orange County Business Expectations survey (OCBX), conducted by the Woods Center for Economic Analysis and Forecasting housed within Mihaylo College of Business and Economics at Cal State Fullerton, produces an index of local business sentiment. This index has improved marginally in the fourth quarter of this year, relative to the previous quarter and even relative to year-ago values. The overall value of the OCBX index, which is a weighted average of several survey questions, increased to 84.4 in the fourth quarter of 2016, compared to 79.4 in the third quarter of 2016 and 83.8 in the fourth quarter of 2015 (Figure 18).

FIGURE 18
OCBX Index Remains Range Bound
(index level and employment y-o-y percent change)



The index has proven accurate in the past in predicting future job changes in Orange County. A reading above 50 indicates continued growth in the economy. Combined with our other statistical forecasts, we foresee continued steady growth in the Orange County and regional economies. Housing prices will continue to advance and are expected to increase by approximately 6% during 2017.

Detailed economic data for all of the counties are given in the following tables.

Aaron Popp and Robert Giuliano provided expert assistance with analysis and the report on the regional economy. Any errors remain authors' responsibility.

TABLE 1 - NATIONAL

	2011	2012	2013	2014	2015	2016f	2017f	2018f	3-year average 2016-2018
GDP									
Real GDP (Bil. \$)	14,784	15,021	15,355	15,583	15,962	16,201	16,558	16,889	16,549
% change RGDP	1.6	2.2	1.7	2.4	2.6	1.5	2.2	2.0	1.9
Nominal GDP (Bil. \$)	15,518	16,155	16,692	17,393	18,037	18,560	19,321	20,093	19,325
% change Nominal GDP	3.7	4.1	3.3	4.2	3.7	2.9	4.1	4.0	3.7
RGDP Components									
Personal Consumption (% change)	2.3	1.5	1.5	2.9	3.2	2.7	2.5	2.4	2.5
Business Fixed Investment (% change)	6.3	9.8	5	5.5	4.0	-0.3	4.8	3.9	2.8
Residential (% change)	0.5	13.5	11.9	3.5	11.7	4.3	6.1	4.1	4.8
Nonresidential (% change)	7.7	9	3.5	6	2.1	-0.3	4.4	3.9	2.7
Exports (% change)	6.9	3.4	3.5	4.3	0.1	-0.3	2.8	3.6	2.0
Imports (% change)	5.5	2.2	1.1	4.4	4.6	1.1	3.8	4.8	3.2
Net Exports (Bil. \$)	-580	-566	-492	-509	-522	-503	-530	-550	-528
Federal Deficit (Bil. \$)	-1,297	-1,089	-680	-483	-439	-587	-598	-564	-583
Labor Sector									
Unemployment Rate (%)	8.9	8.1	7.4	6.2	6.2	4.9	4.8	4.9	4.9
Payroll Employment (% change)	1.2	1.7	1.6	1.9	2.1	1.5	1.3	1.1	1.3
Average Weekly Hours (saar)	34.3	34.4	34.4	34.5	34.5	34.4	34.5	34.6	34.5
Labor Productivity (% change, saar)	0.1	0.9	0.3	0.8	0.9	-0.1	0.9	1.1	0.6
Prices and Wages									
CPI (% change)	3.1	2.1	1.5	1.6	0.1	1.3	2.1	2.3	1.9
Core CPI (% change)	1.7	2.1	1.8	1.7	1.8	2.1	2.3	2.2	2.2
PCE Deflator (% change)	2.5	1.9	1.3	1.5	0.3	1.1	1.7	1.9	1.6
GDP Deflator (% change)	2.1	1.8	1.6	1.8	1.1	1.3	1.9	2.1	1.8
Employment Cost Index (% change)	2.2	1.9	1.9	2.1	2.1	2.2	2.6	2.9	2.6
Income/Profits									
Personal Income (% change)	6.2	5.0	1.1	5.2	4.4	3.1	3.3	3.3	3.2
Real Disposable Income (% change)	2.5	3.1	-1.4	3.5	3.5	2.6	2.8	2.4	2.6
Savings Rate (% of disp. income)	6.1	7.6	5.0	5.6	5.8	5.7	6.1	6.3	6.0
After-Tax Profits (% change)	-2.9	17.9	0.3	2.5	-8.5	-0.9	3.2	4.5	2.3
Financial Markets (year-end)									
Federal Funds Rate (%)	0.07	0.16	0.09	0.12	0.24	0.55	1.00	1.50	1.02
3-Month T-bill rate (%)	0.02	0.06	0.07	0.03	0.21	0.43	0.97	1.59	1.00
10-Year Treasury Note (%)	1.89	1.78	3.04	2.17	2.27	1.83	2.45	2.75	2.34
30-Year Fixed Mortgage Rate (%)	3.95	3.35	4.48	3.83	4.01	3.68	3.94	4.25	3.96
Exchange Rate, Major Trading Partners (% change)	0.3	0.2	3.5	11.7	10.8	-0.5	2.2	2.9	1.53
Other Key Measures									
Crude Oil - Brent (\$ per Barrel)	110.9	111.8	108.7	99.8	52.6	45.2	53.8	60.3	53.1
Industrial Production (% change)	2.9	2.8	1.9	2.9	0.3	-1.1	2.1	1.7	0.9
Housing Starts (Mill. Units, saar)	0.61	0.78	0.93	1.00	1.11	1.16	1.24	1.30	1.2
Existing Home Sales (Mill. Units, saar)	4.28	4.66	5.07	4.92	5.23	5.33	5.42	5.28	5.3
Light Vehicle Sales (Mill. Units, saar)	12.7	14.4	15.5	16.4	17.4	17.3	17.1	16.8	17.1

TABLE 2 - ORANGE COUNTY

	2014	2015	2016f	2017f	2018f
<i>Levels in Thousands</i>					
Population					
Total population	3145.5	3172.9	3200.5	3228.2	3256.0
Annual percentage change	0.8%	0.9%	0.9%	0.9%	0.9%
Household Employment					
Labor Force	1578.2	1597.1	1609.3	1623.7	1637.4
Total Employment	1491.8	1525.6	1546.3	1564.4	1579.3
Total Unemployment	86.4	71.5	64.9	64.6	65.9
Unemployment Rate	5.5%	4.5%	4.0%	4.0%	4.0%
Wage & Salary Employment					
Total Nonfarm	1,495.5	1,542.7	1,582.4	1,619.2	1,655.6
Goods Producing	240.1	248.0	258.7	263.8	273.1
Mining and Logging	0.7	0.7	0.6	0.6	0.6
Construction	82.0	90.4	102.5	106.0	114.2
Manufacturing	157.4	156.9	155.6	157.1	158.2
Durable Goods	115.5	115.3	115.1	116.9	118.7
Nondurable Goods	42.0	41.7	40.5	40.2	39.5
Service Providing	1,255.3	1,294.7	1,323.7	1,355.4	1,382.5
Trade, Transportation and Utilities	255.9	259.1	264.2	266.9	266.0
Wholesale Trade	80.9	81.0	84.3	85.6	86.6
Retail Trade	148.5	151.2	152.8	154.1	152.2
Transportation, Warehousing and Utilities	26.5	26.9	27.1	27.2	27.3
Information	24.5	25.5	26.0	26.3	26.5
Financial Activities	113.6	116.8	117.0	117.5	118.1
Professional and Business Services	276.6	285.4	293.9	312.0	329.2
Educational and Health Services	190.8	198.8	204.3	208.9	214.0
Leisure and Hospitality	194.5	204.0	210.6	215.4	219.1
Other Services	47.3	48.8	48.9	49.8	50.5
Government	152.2	156.2	158.8	158.5	159.1
<i>Percentage change</i>					
Total Nonfarm	2.3%	3.2%	2.6%	2.3%	2.2%
Goods Producing	2.0%	3.3%	4.3%	2.0%	3.5%
Mining and Logging	9.1%	-1.2%	-10.9%	2.8%	1.7%
Construction	6.7%	10.2%	13.4%	3.5%	7.7%
Manufacturing	-0.4%	-0.3%	-0.8%	1.0%	0.7%
Durable Goods	0.3%	-0.2%	-0.2%	1.6%	1.6%
Nondurable Goods	-2.3%	-0.7%	-2.7%	-0.7%	-1.9%
Service Providing	2.4%	3.1%	2.2%	2.4%	2.0%
Trade, Transportation and Utilities	1.4%	1.3%	2.0%	1.0%	-0.4%
Wholesale Trade	1.9%	0.2%	4.1%	1.5%	1.1%
Retail Trade	2.0%	1.9%	1.0%	0.9%	-1.2%
Transportation, Warehousing and Utilities	-3.5%	1.4%	0.7%	0.6%	0.2%
Information	-1.7%	4.1%	2.0%	1.1%	0.7%
Financial Activities	0.5%	2.8%	0.1%	0.4%	0.5%
Professional and Business Services	3.5%	3.2%	3.0%	6.1%	5.5%
Educational and Health Services	2.6%	4.2%	2.8%	2.3%	2.5%
Leisure and Hospitality	3.6%	4.9%	3.2%	2.3%	1.7%
Other Services	3.7%	3.2%	0.3%	1.8%	1.5%
Government	2.4%	2.6%	1.6%	-0.2%	0.3%
<i>Levels in millions</i>					
Personal Income					
Personal Income	173.3	181.3	189.8	198.9	209.1
Annual percentage change	4.5%	4.6%	4.7%	4.8%	5.1%
Per capita income (\$)	\$55,096	\$57,133	\$59,303	\$61,617	\$64,206
Taxable Sales					
Total taxable sales	60.1	63.6	66.2	69.5	72.5
Year to year percentage change	4.4%	5.9%	4.1%	5.0%	4.3%

TABLE 3 - SOUTHERN CALIFORNIA

	2014	2015	2016f	2017f	2018f
<i>Levels in Thousands</i>					
Population					
Total population	18729.4	18935.2	19144.3	19355.7	19568.7
Annual percentage change	0.8%	1.1%	1.1%	1.1%	1.1%
Household Employment					
Labor Force	9042.9	9079.3	9126.1	9242.1	9369.0
Total Employment	8338.7	8498.0	8642.1	8756.6	8901.6
Total Unemployment	704.2	581.3	484.0	485.4	467.3
Unemployment Rate	7.8%	6.4%	5.3%	5.3%	5.0%
Wage & Salary Employment					
Total Nonfarm	7,318.3	7,510.6	7,698.1	7,879.6	8,056.6
Goods Producing	948.0	970.3	988.1	1,002.6	1,023.2
Mining and Logging	9.9	9.6	9.5	9.5	9.5
Construction	292.9	315.9	339.7	353.6	374.9
Manufacturing	645.2	644.8	638.9	639.5	638.7
Durable Goods	397.7	399.7	397.0	399.8	402.0
Nondurable Goods	247.5	245.1	241.9	239.8	236.7
Service Providing	6,370.4	6,540.3	6,710.0	6,876.9	7,033.5
Trade, Transportation and Utilities	1,439.5	1,479.9	1,509.1	1,532.6	1,554.8
Wholesale Trade	376.9	384.1	388.1	388.0	391.7
Retail Trade	778.1	793.1	809.2	826.3	834.8
Transportation, Warehousing and Utilities	284.5	302.7	311.7	318.3	328.3
Information	239.4	244.9	252.2	245.3	244.3
Financial Activities	387.1	393.3	399.1	403.2	403.4
Professional and Business Services	1,052.8	1,067.0	1,089.5	1,133.1	1,165.1
Educational and Health Services	1,156.5	1,197.5	1,248.5	1,300.7	1,345.4
Leisure and Hospitality	844.7	883.7	915.6	959.0	1,004.5
Other Services	251.3	254.9	258.7	262.5	266.1
Government	999.0	1,019.3	1,037.4	1,040.5	1,049.9
<i>Percentage change</i>					
Total Nonfarm	2.4%	2.6%	2.5%	2.4%	2.2%
Goods Producing	1.8%	2.4%	1.8%	1.5%	2.0%
Mining and Logging	3.4%	-2.9%	-1.4%	0.4%	0.4%
Construction	6.3%	7.9%	7.5%	4.1%	6.0%
Manufacturing	-0.1%	-0.1%	-0.9%	0.1%	-0.1%
Durable Goods	0.6%	0.5%	-0.7%	0.7%	0.6%
Nondurable Goods	-1.2%	-1.0%	-1.3%	-0.9%	-1.3%
Service Providing	2.5%	2.7%	2.6%	2.5%	2.3%
Trade, Transportation and Utilities	2.7%	2.8%	2.0%	1.6%	1.5%
Wholesale Trade	2.1%	1.9%	1.1%	0.0%	1.0%
Retail Trade	2.1%	1.9%	2.0%	2.1%	1.0%
Transportation, Warehousing and Utilities	4.9%	6.4%	3.0%	2.1%	3.1%
Information	0.4%	2.3%	3.0%	-2.7%	-0.4%
Financial Activities	-0.2%	1.6%	1.5%	1.0%	0.1%
Professional and Business Services	2.0%	1.3%	2.1%	4.0%	2.8%
Educational and Health Services	2.9%	3.5%	4.3%	4.2%	3.4%
Leisure and Hospitality	5.4%	4.6%	3.6%	4.7%	4.7%
Other Services	3.5%	1.4%	1.5%	1.5%	1.4%
Government	1.3%	2.0%	1.8%	0.3%	0.9%
<i>Levels in millions</i>					
Personal Income					
Personal Income	869.3	906.7	948.4	991.7	1040.0
Annual percentage change	4.5%	4.3%	4.6%	4.6%	4.9%
Per capita income (\$)	\$46,411	\$47,885	\$49,538	\$51,234	\$53,147
Taxable Sales					
Total taxable sales	289.8	304.5	319.7	336.2	353.0
Year to year percentage change	5.2%	5.0%	5.0%	5.1%	5.0%

TABLE 4 - LOS ANGELES COUNTY

	2014	2015	2016f	2017f	2018f
<i>Levels in Thousands</i>					
Population					
Total population	10116.7	10182.7	10250.7	10320.3	10391.1
Annual percentage change	0.6%	0.7%	0.7%	0.7%	0.7%
Household Employment					
Labor Force	5025.9	5011.7	5029.7	5091.3	5166.5
Total Employment	4611.5	4674.8	4772.5	4825.8	4908.2
Total Unemployment	414.3	336.9	257.2	265.5	258.3
Unemployment Rate	8.2%	6.7%	5.1%	5.2%	5.0%
Wage & Salary Employment					
Total Nonfarm	4,189.0	4,274.2	4,371.4	4,460.3	4,547.5
Goods Producing	488.0	490.8	488.5	490.0	489.9
Mining and Logging	4.3	3.9	3.5	3.6	3.7
Construction	119.6	126.1	131.3	136.9	141.4
Manufacturing	364.1	360.8	353.6	349.5	344.8
Durable Goods	202.9	202.4	199.4	198.5	197.0
Nondurable Goods	161.3	158.4	154.3	151.0	147.8
Service Providing	3,701.0	3,783.4	3,882.9	3,970.3	4,057.6
Trade, Transportation and Utilities	798.8	817.8	829.4	835.2	843.3
Wholesale Trade	222.5	227.0	225.3	225.1	225.8
Retail Trade	413.0	420.5	431.6	441.2	448.4
Transportation, Warehousing and Utilities	163.4	170.4	172.4	168.9	169.2
Information	198.0	202.7	209.5	202.9	201.0
Financial Activities	211.1	214.2	219.7	224.2	227.2
Professional and Business Services	599.1	600.3	612.5	630.3	640.0
Educational and Health Services	720.7	742.2	777.4	809.7	838.0
Leisure and Hospitality	466.6	488.1	509.6	540.9	574.3
Other Services	150.5	151.7	153.4	155.2	157.1
Government	556.2	566.4	571.3	572.0	576.7
<i>Percentage change</i>					
Total Nonfarm	1.9%	2.0%	2.3%	2.0%	2.0%
Goods Producing	-0.2%	0.6%	-0.5%	0.3%	0.0%
Mining and Logging	-5.0%	-8.8%	-8.8%	1.6%	2.3%
Construction	3.0%	5.5%	4.1%	4.3%	3.2%
Manufacturing	-1.1%	-0.9%	-2.0%	-1.2%	-1.3%
Durable Goods	-0.7%	-0.2%	-1.5%	-0.4%	-0.8%
Nondurable Goods	-1.5%	-1.8%	-2.6%	-2.1%	-2.1%
Service Providing	2.1%	2.2%	2.6%	2.3%	2.2%
Trade, Transportation and Utilities	2.2%	2.4%	1.4%	0.7%	1.0%
Wholesale Trade	1.7%	2.0%	-0.7%	-0.1%	0.3%
Retail Trade	1.8%	1.8%	2.7%	2.2%	1.6%
Transportation, Warehousing and Utilities	3.7%	4.3%	1.2%	-2.0%	0.1%
Information	0.8%	2.4%	3.4%	-3.2%	-0.9%
Financial Activities	-0.9%	1.4%	2.6%	2.0%	1.3%
Professional and Business Services	1.0%	0.2%	2.0%	2.9%	1.5%
Educational and Health Services	2.6%	3.0%	4.7%	4.1%	3.5%
Leisure and Hospitality	5.9%	4.6%	4.4%	6.1%	6.2%
Other Services	3.3%	0.8%	1.2%	1.1%	1.2%
Government	0.9%	1.8%	0.9%	0.1%	0.8%
<i>Levels in millions</i>					
Personal Income					
Personal Income	499.8	520.7	544.6	569.1	596.5
Annual percentage change	4.5%	4.2%	4.6%	4.5%	4.8%
Per capita income (\$)	\$49,400	\$51,134	\$53,132	\$55,139	\$57,402
Taxable Sales					
Total taxable sales	147.4	154.2	161.9	169.9	178.4
Year to year percentage change	5.3%	4.6%	5.0%	4.9%	5.0%

TABLE 5 - RIVERSIDE/SAN BERNARDINO COUNTIES

	2014	2015	2016f	2017f	2018f
<i>Levels in Thousands</i>					
Population					
Total population	4441.9	4540.5	4640.0	4740.1	4840.7
Annual percentage change	1.2%	2.2%	2.2%	2.2%	2.1%
Household Employment					
Labor Force	1927.6	1961.8	1976.7	2009.0	2040.0
Total Employment	1771.7	1832.3	1856.2	1893.5	1935.8
Total Unemployment	155.9	129.5	117.3	116.1	114.8
Unemployment Rate	8.1%	6.6%	5.9%	5.8%	5.6%
Wage & Salary Employment					
Total Nonfarm	1,289.3	1,347.4	1,392.3	1,443.0	1,492.0
Goods Producing	170.2	182.1	191.0	197.6	206.1
Mining and Logging	1.3	1.3	1.2	1.2	1.2
Construction	77.6	85.2	91.1	94.9	101.3
Manufacturing	91.3	95.6	98.6	101.5	103.7
Durable Goods	60.2	62.8	64.0	65.7	67.3
Nondurable Goods	31.1	32.8	34.6	35.8	36.4
Service Providing	1,119.1	1,165.2	1,201.3	1,245.4	1,285.8
Trade, Transportation and Utilities	314.9	332.5	344.7	358.1	372.7
Wholesale Trade	58.9	61.7	63.9	62.3	63.6
Retail Trade	169.4	173.5	176.6	181.7	185.4
Transportation, Warehousing and Utilities	86.6	97.3	104.2	114.1	123.7
Information	11.3	11.3	11.4	11.1	11.3
Financial Activities	42.3	43.2	43.7	43.9	43.0
Professional and Business Services	139.3	144.4	145.7	152.0	156.2
Educational and Health Services	194.8	205.0	213.7	227.1	237.5
Leisure and Hospitality	144.8	151.5	153.6	159.0	165.5
Other Services	43.0	44.0	45.8	47.0	47.8
Government	228.8	233.4	242.7	247.1	251.8
<i>Percentage change</i>					
Total Nonfarm	4.5%	4.5%	3.3%	3.6%	3.4%
Goods Producing	7.3%	7.0%	4.8%	3.5%	4.3%
Mining and Logging	7.6%	3.2%	-10.7%	1.8%	1.7%
Construction	10.8%	9.8%	6.9%	4.2%	6.7%
Manufacturing	4.6%	4.7%	3.2%	2.9%	2.2%
Durable Goods	5.1%	4.3%	2.0%	2.6%	2.4%
Nondurable Goods	3.5%	5.4%	5.5%	3.3%	1.6%
Service Providing	4.1%	4.1%	3.1%	3.7%	3.2%
Trade, Transportation and Utilities	5.1%	5.6%	3.7%	3.9%	4.1%
Wholesale Trade	4.5%	4.7%	3.6%	-2.5%	2.1%
Retail Trade	2.8%	2.4%	1.8%	2.8%	2.1%
Transportation, Warehousing and Utilities	10.3%	12.4%	7.0%	9.6%	8.3%
Information	-2.4%	0.4%	0.8%	-2.6%	1.8%
Financial Activities	2.2%	2.3%	1.1%	0.5%	-2.1%
Professional and Business Services	5.2%	3.6%	0.9%	4.3%	2.7%
Educational and Health Services	3.8%	5.2%	4.3%	6.3%	4.6%
Leisure and Hospitality	6.6%	4.6%	1.4%	3.6%	4.1%
Other Services	4.6%	2.3%	4.2%	2.5%	1.8%
Government	1.6%	2.0%	4.0%	1.8%	1.9%
<i>Levels in millions</i>					
Personal Income					
Personal Income	147.7	154.1	161.1	168.4	176.4
Annual percentage change	4.8%	4.3%	4.5%	4.5%	4.8%
Per capita income (\$)	\$33,258	\$33,943	\$34,710	\$35,517	\$36,447
Taxable Sales					
Total taxable sales	64.5	67.4	70.9	74.7	78.7
Year to year percentage change	5.3%	4.6%	5.2%	5.3%	5.3%

TABLE 6 - VENTURA COUNTY

	2014	2015	2016f	2017f	2018f
<i>Levels in Thousands</i>					
Population					
Total population	846.2	855.7	865.4	875.1	884.8
Annual percentage change	0.6%	1.1%	1.1%	1.1%	1.1%
Household Employment					
Labor Force	432.6	429.8	430.3	436.2	441.8
Total Employment	403.9	405.4	405.6	408.5	412.1
Total Unemployment	28.7	24.4	22.7	21.7	21.4
Unemployment Rate	6.6%	5.7%	5.3%	5.0%	4.8%
Wage & Salary Employment					
Total Nonfarm	292.9	294.8	298.3	301.5	304.6
Goods Producing	45.6	45.6	45.7	47.0	50.2
Mining and Logging	1.3	1.0	0.9	0.9	1.0
Construction	13.7	14.2	14.9	15.7	18.1
Manufacturing	30.6	30.4	30.0	30.4	31.1
Durable Goods	18.6	18.7	18.1	18.1	18.3
Nondurable Goods	12.0	11.7	11.9	12.3	12.8
Service Providing	247.3	249.2	252.6	254.4	254.4
Trade, Transportation and Utilities	58.0	58.2	58.4	59.8	60.1
Wholesale Trade	12.8	12.6	12.7	13.2	14.0
Retail Trade	39.2	39.7	39.7	40.9	40.3
Transportation, Warehousing and Utilities	6.0	6.0	5.9	5.8	5.7
Information	5.3	5.1	4.9	4.6	5.0
Financial Activities	18.7	17.8	17.3	16.2	13.7
Professional and Business Services	35.1	34.7	35.2	36.5	37.2
Educational and Health Services	41.6	42.7	43.7	45.0	45.7
Leisure and Hospitality	34.8	35.9	37.3	38.9	40.8
Other Services	9.8	9.6	9.6	9.6	9.7
Government	44.0	45.3	46.1	43.7	42.2
<i>Percentage change</i>					
Total Nonfarm	1.4%	0.6%	1.2%	1.1%	1.0%
Goods Producing	4.2%	0.0%	0.3%	2.8%	6.7%
Mining and Logging	6.8%	-21.8%	-12.3%	2.2%	5.1%
Construction	8.8%	3.3%	4.8%	5.7%	15.2%
Manufacturing	2.2%	-0.6%	-1.4%	1.4%	2.3%
Durable Goods	2.6%	0.6%	-3.6%	0.2%	1.4%
Nondurable Goods	1.6%	-2.4%	2.2%	3.3%	3.7%
Service Providing	0.9%	0.8%	1.3%	0.7%	0.0%
Trade, Transportation and Utilities	1.3%	0.5%	0.3%	2.4%	0.4%
Wholesale Trade	-0.5%	-1.7%	1.3%	3.3%	6.8%
Retail Trade	1.8%	1.2%	0.2%	2.8%	-1.4%
Transportation, Warehousing and Utilities	2.0%	0.1%	-1.3%	-1.6%	-1.4%
Information	2.6%	-5.1%	-3.0%	-5.5%	7.8%
Financial Activities	-1.0%	-5.2%	-2.3%	-6.8%	-15.1%
Professional and Business Services	-3.3%	-1.1%	1.7%	3.6%	1.8%
Educational and Health Services	3.1%	2.6%	2.2%	3.2%	1.6%
Leisure and Hospitality	3.1%	3.0%	4.0%	4.3%	4.8%
Other Services	1.4%	-1.8%	-0.2%	0.4%	0.9%
Government	0.9%	3.0%	1.7%	-5.3%	-3.4%
<i>Levels in millions</i>					
Personal Income					
Personal Income	42.7	44.6	46.7	48.9	51.3
Annual percentage change	4.2%	4.6%	4.6%	4.7%	5.0%
Per capita income (\$)	\$50,405	\$52,117	\$53,906	\$55,828	\$57,976
Taxable Sales					
Total taxable sales	13.4	13.9	14.6	15.2	15.8
Year to year percentage change	4.2%	4.2%	4.6%	4.3%	4.3%

TABLE 7 - IMPERIAL COUNTY

	2014	2015	2016f	2017f	2018f
<i>Levels in Thousands</i>					
Population					
Total population	179.1	183.4	187.6	191.9	196.2
Annual percentage change	0.9%	2.4%	2.3%	2.3%	2.2%
Household Employment					
Labor Force	78.7	78.9	80.2	81.8	83.3
Total Employment	59.8	60.0	61.6	64.4	66.3
Total Unemployment	18.9	18.9	19.0	19.4	19.6
Unemployment Rate	24.0%	24.0%	23.7%	23.7%	23.5%
Wage & Salary Employment					
Total Nonfarm	51.7	51.5	53.8	55.6	57.0
Goods Producing	4.1	3.8	4.2	4.2	3.9
Mining, Logging, and Construction	2.3	2.7	3.2	3.2	3.0
Construction					
Manufacturing	1.7	1.1	1.0	1.0	0.9
Durable Goods	0.6	0.5	0.5	0.5	0.6
Nondurable Goods	1.2	0.6	0.5	0.5	0.3
Service Providing	47.6	47.8	49.5	51.5	53.1
Trade, Transportation and Utilities	11.9	12.2	12.4	12.5	12.7
Wholesale Trade	1.8	1.8	1.8	1.8	1.7
Retail Trade	8.1	8.3	8.5	8.5	8.6
Transportation, Warehousing and Utilities	2.1	2.1	2.1	2.2	2.4
Information	0.3	0.3	0.3	0.4	0.4
Financial Activities	1.4	1.3	1.3	1.4	1.4
Professional and Business Services	2.7	2.2	2.1	2.4	2.6
Educational and Health Services	8.6	8.8	9.4	10.0	10.0
Leisure and Hospitality	4.0	4.2	4.6	4.7	4.8
Other Services	0.8	0.9	0.9	0.9	1.0
Government	17.9	17.9	18.5	19.2	20.2
<i>Percentage change</i>					
Total Nonfarm	1.5%	-0.3%	4.4%	3.5%	2.5%
Goods Producing	-10.0%	-7.2%	12.5%	-1.5%	-5.9%
Mining, Logging, and Construction	15.6%	14.2%	20.5%	-2.2%	-3.8%
Construction					
Manufacturing	-30.8%	-36.2%	-6.9%	0.7%	-12.2%
Durable Goods	6.3%	-10.4%	0.6%	7.0%	6.1%
Nondurable Goods	-40.7%	-48.6%	-13.2%	-5.5%	-32.2%
Service Providing	2.6%	0.3%	3.7%	3.9%	3.2%
Trade, Transportation and Utilities	6.2%	2.0%	2.0%	0.5%	2.0%
Wholesale Trade	0.0%	0.0%	2.4%	-2.8%	-3.2%
Retail Trade	7.9%	2.8%	2.4%	0.1%	1.1%
Transportation, Warehousing and Utilities	5.1%	0.8%	0.1%	5.2%	9.5%
Information	-2.7%	0.0%	4.8%	27.3%	8.8%
Financial Activities	-1.2%	-6.0%	1.1%	5.7%	1.3%
Professional and Business Services	-3.0%	-16.6%	-5.6%	11.9%	9.4%
Educational and Health Services	3.2%	2.2%	7.2%	5.8%	0.1%
Leisure and Hospitality	4.1%	3.1%	10.3%	3.0%	1.2%
Other Services	0.0%	6.3%	6.4%	1.7%	3.3%
Government	1.0%	0.3%	2.9%	4.1%	5.4%
<i>Levels in millions</i>					
Personal Income					
Personal Income	5.8	6.0	6.2	6.5	6.8
Annual percentage change	3.8%	4.0%	3.2%	4.2%	4.5%
Per capita income (\$)	\$32,398	\$32,896	\$33,170	\$33,792	\$34,530
Taxable Sales					
Total taxable sales	4.4	5.2	6.1	6.8	7.6
Year to year percentage change	21.3%	18.1%	15.4%	13.1%	11.1%

TABLE 8 - CONSTRUCTION AND REAL ESTATE ('000)

	2014	2015	2016f	2017f	2018f	2019f
Orange County						
Permits	9.8	11.4	12.4	14.0	15.6	9.2
Residential Valuation	2,413.7	2,884.5	3,135.3	3,599.5	4,043.6	2,128.3
Non-residential Valuation	1,956.5	1,888.0	2,151.2	2,484.7	2,849.9	2,526.1
<i>Percentage change</i>						
Permits	-1.5%	16.7%	8.4%	13.1%	11.3%	-41.0%
Residential Valuation	-3.7%	19.5%	8.7%	14.8%	12.3%	-47.4%
Non-residential Valuation	28.9%	-3.5%	13.9%	15.5%	14.7%	-11.4%
Los Angeles County						
Permits	18.9	22.9	27.2	31.3	36.6	20.2
Residential Valuation	5,479.8	6,336.0	7,484.1	8,746.9	10,277.3	6,679.3
Non-residential Valuation	6,730.5	5,403.5	6,682.9	7,899.2	9,553.2	4,756.3
<i>Percentage change</i>						
Permits	15.9%	21.5%	18.7%	15.1%	16.9%	-44.8%
Residential Valuation	17.3%	15.6%	18.1%	16.9%	17.5%	-35.0%
Non-residential Valuation	62.8%	-19.7%	23.7%	18.2%	20.9%	-50.2%
Riverside-San Bernardino Counties						
Permits	9.8	9.4	10.0	12.0	15.1	11.0
Residential Valuation	2,182.7	2,381.3	2,649.3	3,054.6	3,480.4	2,139.0
Non-residential Valuation	1,634.1	1,825.7	1,972.1	2,269.9	2,545.3	1,904.1
<i>Percentage change</i>						
Permits	6.4%	-3.9%	6.1%	20.1%	26.2%	-27.1%
Residential Valuation	11.4%	9.1%	11.3%	15.3%	13.9%	-38.5%
Non-residential Valuation	2.9%	11.7%	8.0%	15.1%	12.1%	-25.2%
Ventura County						
Permits	1.0	0.87	0.97	1.0	1.1	0.8
Residential Valuation	311.5	324.2	378.9	420.5	482.0	311.0
Non-residential Valuation	132.9	160.1	176.0	204.2	232.0	158.6
<i>Percentage change</i>						
Permits	31.2%	-9.6%	11.9%	5.3%	9.0%	-25.2%
Residential Valuation	26.6%	4.1%	16.9%	11.0%	14.6%	-35.5%
Non-residential Valuation	-2.4%	20.5%	10.0%	16.0%	13.6%	-31.6%
Imperial County						
Permits	0.2	0.4	0.4	0.6	0.8	0.2
Residential Valuation	46.9	53.3	47.1	47.6	45.0	80.9
Non-residential Valuation	34.8	46.7	31.4	31.6	26.3	90.9
<i>Percentage change</i>						
Permits	-29.3%	58.1%	15.8%	38.8%	28.6%	-72.3%
Residential Valuation	-34.7%	13.7%	-11.6%	1.1%	-5.5%	79.8%
Non-residential Valuation	-94.1%	34.3%	-32.9%	0.7%	-16.9%	246.0%
Southern California						
Permits	39.6	45.0	51.0	58.9	69.2	41.5
Residential Valuation	10,434.6	11,979.3	13,694.7	15,869.1	18,328.3	11,338.5
Non-residential Valuation	10,488.8	9,324.1	11,013.7	12,889.5	15,206.7	9,435.9
<i>Percentage change</i>						
Permits	8.7%	13.5%	13.3%	15.6%	17.4%	-40.0%
Residential Valuation	10.4%	14.8%	14.3%	15.9%	15.5%	-38.1%
Non-residential Valuation	31.6%	-11.1%	18.1%	17.0%	18.0%	-37.9%

Sources: Number of housing permits and valuation data, in thousands, are from CCR

ORANGE COUNTY BUSINESS EXPECTATIONS SURVEY (OCBX)

4TH QUARTER 2016

Anil Puri, Ph.D.

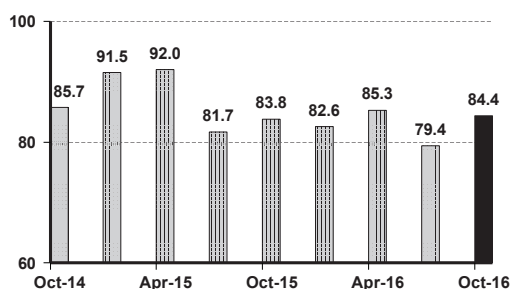
Director, Woods Center for Economic Analysis and Forecasting
Interim Provost and Vice President of Academic Affairs

***This survey of OC business executives was conducted during Sep. 20 – Sep. 26, 2016.
54 executives responded for a response rate of approximately 12%.***

Orange County Business Expectations: OCBX Index

The overall index, OCBX, for the 4th quarter 2016 increased to 84.4 compared to a value of 79.4 in the 3rd quarter 2016. The OCBX index is a measure of the overall view of the economy and it is constructed from other variables in the survey. A reading of above 50 indicates future growth in the economy. In Orange County, the business executives significantly increased their expectations for the economy for the 4th quarter of 2016 compared to the quarter before. This is likely the result of improving employment picture, somewhat improved international scene especially in Europe and lesser concern for short-term outlook for the Chinese economy.

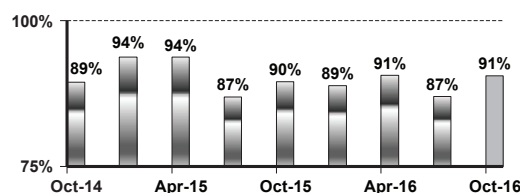
Orange County Business Expectations (OCBX) Index (level)



Overall Business Activity

The proportion of owners, CEOs, and managers that expect overall business activity to improve or stay the same was 91% in the 4th quarter 2016 compared to 87% for the 3rd quarter 2016. This variable measures responses to questions about Orange County executives' own industry as well as their outlook for the regional economy.

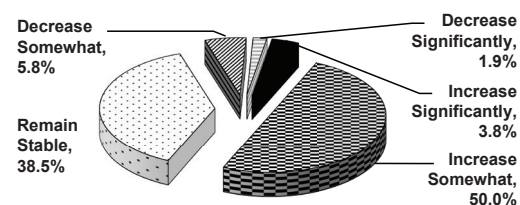
Overall Business Activity: Expect Increase or No Change (percent of respondents)



Own Industry Activity Survey Results

53.8% of the executives expect significant or some growth (compared to 51.8% in the last quarter) in their own industry. 7.7% (compared to 11.2% in the previous quarter) of businesses predict some decreases in their industry. 38.5% (compared to 37% last quarter) of Orange County firms believe that their own industry will remain stable. There is an improvement of expectations for the own industry's growth prospects compared to the last quarter.

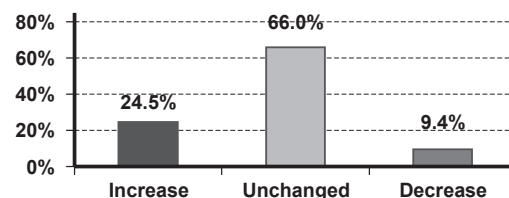
Expected Local Industry Activity Over the Next Three Months



Employment

24.5% of firms surveyed intend to increase their labor force (compared to 34% in the last quarter), 66% intend to make no change (compared to 56.6% last quarter), and 9.4% expect to cut jobs (9.4% in the last quarter). The employment growth picture is mixed.

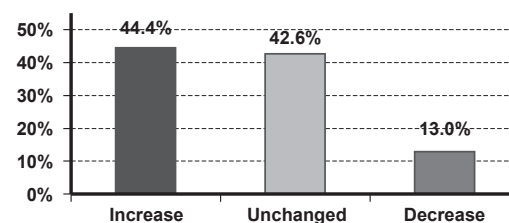
Expected Employment (percent of respondents)



Sales/Revenues

44.4% of the firms surveyed expect their sales to increase this quarter (compared to 57.4% in the last quarter), 42.6% expect little change (compared to 33.3% the last quarter) and 13% expect to have lower sales (compared to 7.4% in the last quarter). Sales increase expectations seem to have slightly deteriorated.

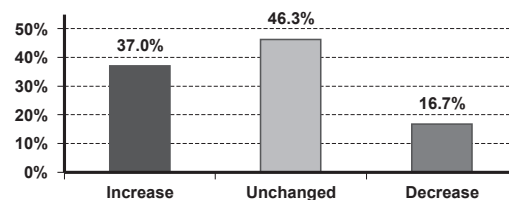
Expected Gross Sales/Revenue (percent of respondents)



Operating Profits

37% of the firms surveyed expect to have higher profits in the next three months (compared to 55.6% last quarter), 46.3% expect no change (compared to 35.2% from last quarter) while 16.7% expect lower profits (compared to 9.3% last quarter). Profit expectations for the coming quarter have deteriorated slightly compared to the last quarter.

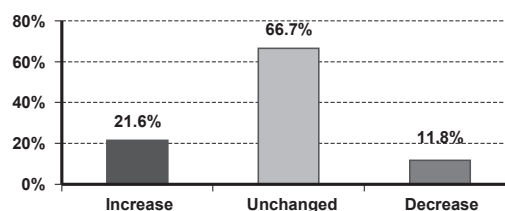
Expected Operating Profits (percent of respondents)



Inventory/Equipment Investment

The percentage of those who said that they expect to see inventories increase was 21.6% compared to 31.5% in the last quarter. The share of those expecting inventories to remain unchanged increased to 66.7% from 53.7% and those who were expecting to reduce inventories decreased to 11.8% from 14.8%. The picture for inventories has improved slightly compared to the last quarter.

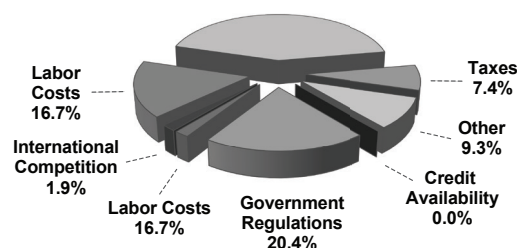
Expected Investment in Inventory/Equipment (percent of respondents)



Most Significant Factors

The concern over the state of the overall economy increased to 42.6% (compared to 38.9% last quarter). Government regulation was the second major concern with 20.4% (compared to 33.3% last quarter). Labor costs continue to be a concern with 16.7% rating (compared to same 14.8% last quarter). Taxes remain the next most important concern. Interest rate uncertainty is the likely factor in concerns about the economy.

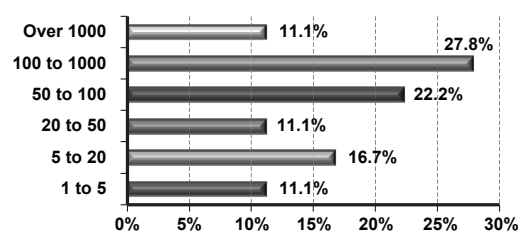
Most Significant Factor Impacting Your Company



Sample Firm Size

Over 38.9% of the firms who responded to the survey employ more than 100 workers, while 27.8% had fewer than 20 employees and the rest, 33.3% had between 20 and 100 employees.

Size of Firms included in OCBX Index: Employment Levels



SOUTHERN CALIFORNIA LEADING ECONOMIC INDICATOR

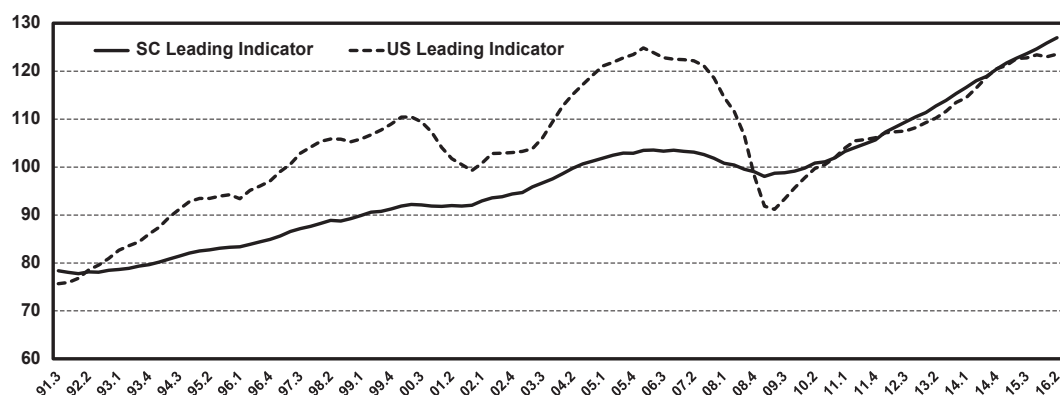
Adrian R. Fleissig, Ph.D.

Research Associate, Woods Center for Economic Analysis and Forecasting
Professor, Department of Economics, Mihaylo College of Business and Economics, CSUF

SUMMARY

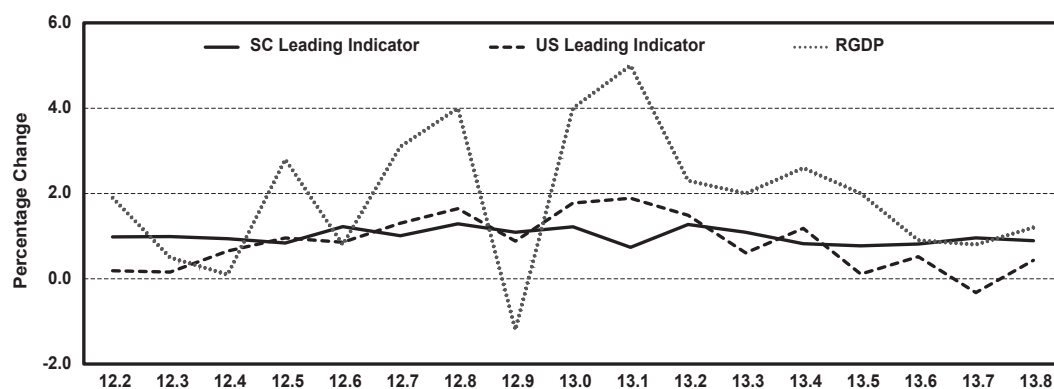
The Southern California Leading Economic Indicator increased by 0.89% in the second quarter of 2016 compared to the first quarter of 2016. This increase suggests a pickup in economic activity in the Southern California region in the next three to six months. The Southern California Leading Economic Indicator continues on its upward trend and has now increased for seven years since the last decrease in the third quarter of 2009. The U.S. leading economic indicator increased in the second quarter of 2016 and implies an increase in economic activity for the U.S. economy in the next three to six months (Figure 1).

FIGURE 1
Southern California and US Leading Indicator



U.S. economic activity, often measured by real GDP growth, is expected to increase in the next three to six months, given the increase in the U.S. leading indicator. The rise in the Southern California Leading Economic Indicator suggests a rise in economic activity in Southern California (Figure 2).

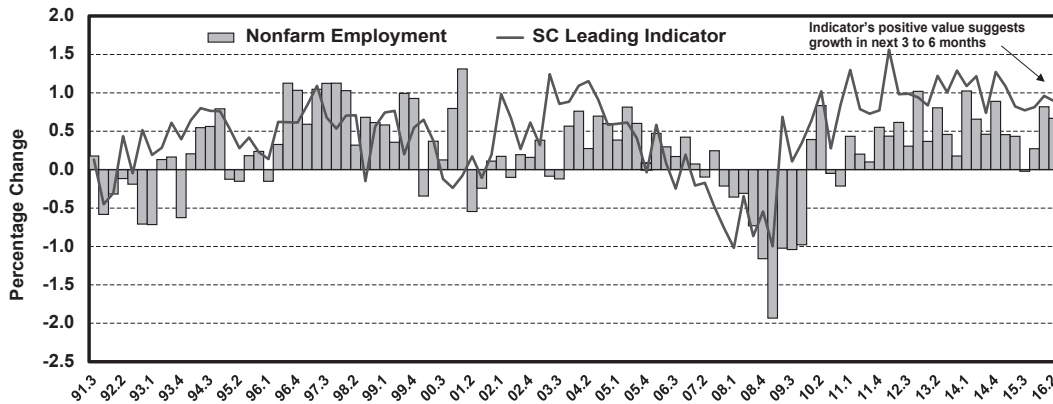
FIGURE 2
Leading Indicators and Real GDP



Southern California Indicator and Economic Activity

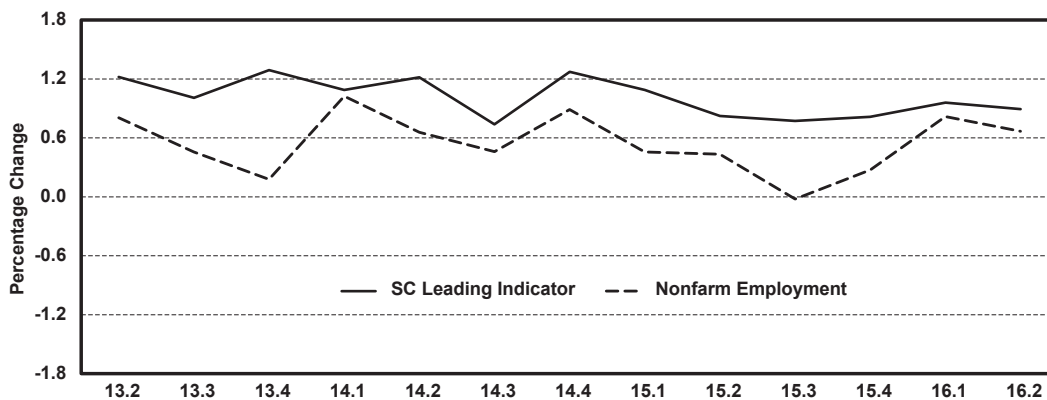
In the absence of up-to-date gross state product data for Southern California, our index is used to analyze trends in total civilian employment. The indicator has been found to be a good predictor of regional economic trends. In general, changes in the index take place prior to changes in regional economic activity. For example, during the recessions of the early 1990s, 2001 and late 2007-2008, the Southern California leading indicator decreased significantly (Figure 3).

FIGURE 3
Southern California Leading Indicator and Employment



For the last two years the Southern California Leading Economic Indicator usually changed one to two quarters before Southern California employment changes (Figure 4). The Southern California Leading Economic Indicator currently projects an increase in Southern California economic activity in the next three to six months.

FIGURE 4
Southern California Leading Indicator Total Civilian Employment



Changes in the Woods Center Leading Economic Indicator and Its Components

The Southern California Leading Economic Indicator increased from a value of 125.87 in the first quarter of 2016 to a value of 126.99 in the second quarter of 2016. The Southern California Leading Economic Indicator has now increased for seven years since the decline in the third quarter of 2009. The 0.89% increase in the second quarter of 2016 suggests continued growth in economic activity

in the Southern California region in the next three to six months. Civilian employment in Southern California, which is notoriously erratic, subject to measurement errors and continually revised, showed an increase in the second quarter of 2016 of 0.67%.

For the quarterly data, six of the seven components had a positive impact on the Southern California Leading Economic Indicator. The positive impacts were from an increase in the Standard & Poor's 500 stock index, gain regional building permits, rise, increase the money supply adjusted for inflation, change in the interest rate spread, decline in regional unemployment, and rise in regional nonfarm employment. The negative impact was from a decline in the in the Pacific region consumer confidence index.

TABLE 1
Leading Economic Indicators and Total Civilian Employment

Variable	2015.2	2015.3	2015.4	2016.1	2016.2
SC Indicator	122.72	123.67	124.67	125.87	126.99
% Change	0.82	0.77	0.81	0.96	0.89
US Indicator	122.63	122.77	123.40	123.00	123.53
% Change	1.18	0.11	0.52	-0.32	0.43
Civilian Employment	8,502,366	8,500,544	8,523,800	8,593,481	8,650,926
% Change	0.44	-0.02	0.27	0.82	0.67

Economic Conditions

For the U.S. economy, real gross domestic product increased at an annualized growth rate of 1.2% during the second quarter of 2016, following the 0.8% increase in the first quarter of 2016. U.S. inflation, measured by the consumer price index, was unchanged in July 2016 and follows the 0.2% increase in June 2016. For California, the seasonally adjusted unemployment rate for July 2016 was 5.5%, which is higher than the 5.4% of June 2016 and also higher than the U.S. unemployment rate of 4.9% in July 2016. Payroll employment in California increased in July 2016 compared to the previous month. There were jobs gains in the six categories trade, transportation and utilities; educational and health services; manufacturing; professional and business services; and construction and information. There were job losses in the five categories leisure and hospitality; government; mining and logging; and financial activities; and the other services sector.

The Woods Center Southern California Leading Economic Indicator includes Los Angeles County, Orange County, San Bernardino County, Riverside County, Ventura County, and Imperial County. The index consists of both national and regional data. The national variables used are interest rates, Standard & Poor 500 stock index, and real money supply. Nonfarm employment, the unemployment rate, building permits, and the Pacific region consumer confidence index make up the regional data. The employment and unemployment data are from the new North American Industry Classification System.

The Woods Center Southern California Leading Economic Indicator provides information about future economic activity in Southern California and is not a prediction of the level of employment. Interpreting changes in a leading economic indicator requires analyzing the size and duration of changes in the direction of the index. As stated by the Conference Board, three consecutive downward movements in the leading index do not necessarily signal a recession. The Southern California Leading Economic Indicator was initially constructed in May 2000 and is revised each quarter using the most recent and often revised data available. Historical labor data include the recent updates. The Conference Board data includes the 2000 benchmark revisions and 2012 methodology changes. The Southern California Leading Economic Indicator (2010=100), following the procedure of the U.S. indicator, has been revised and equals 100 in the year 2010.

HOW DIVERSE IS ORANGE COUNTY'S ECONOMY?

Aaron Popp, Ph.D.

Research Associate, Woods Center for Economic Analysis and Forecasting

Economists have shown that cities and regions with diverse economies will tend to grow faster and foster the spread of ideas¹. Orange County has a diverse set of local industries, but how does Orange County compare to other counties in the United States in terms of its overall economic diversity? Our Economic Diversity Index (EDI) examines how evenly employment is spread across different industries within a county. By this measure, Orange County has the most diverse economy in Southern California and the third most diverse economy among counties in the United States.

The EDI is a modification of the Herfindahl-Hirschman Index that economists use to measure competition in an industry. If s_{ij} is the percentage of employment in major sector i in county j , then the index is:

$$\text{Economic Diversity Index}_j = \frac{1}{10,000} \sum_{i=1}^n s_{ij}^2.$$

A higher EDI indicates a greater concentration of employment in a few major industries. As seen in Table 1, Orange County and Los Angeles County are the most diverse economies in Southern California by this measure²:

TABLE 1
Economic Diversity in Southern California

County	Economic Diversity Index (Varies between 0 and 1: Higher: Less Diversity)
Orange County	0.0958
Los Angeles County	0.0966
San Diego County	0.1016
Santa Barbara County	0.1130
Ventura County	0.1167
San Bernardino County	0.1175
Kern County	0.1258
Riverside County	0.1272
Imperial County	0.1476
San Luis Obispo County	0.1559

To see how the EDI works, consider three hypothetical counties: Apple County, Banana County, and Cherry County. People are employed in either agriculture or manufacturing. In Apple County, 100% of people are employed in the agricultural sector. In Banana County, 75% of people are employed in agriculture. In Cherry County, 50% of people are employed in agriculture. In this case, Cherry County

¹ A review of the literature is available in "Urban Diversity and Economic Growth" by John Quigley, *The Journal of Economic Perspectives*, Vol. 12 No. 2, Spring 1998, pp. 127-138, and evidence for diversity encouraging the spread of innovation is available from many sources, including "Growth in Cities" by Edward Glaeser, Hedi Kallal, Jose Scheinkman, and Andrei Shleifer, *Journal of Political Economy*, Vol. 100 No. 6, 1992, pp. 1126-1152.

² Employment data is from the 2012 Economic Census, which is the United States governments' official census of private businesses and their operations. The 15 sectors are Utilities; Manufacturing; Wholesale Trade; Retail Trade; Transportation; Information; Finance and Insurance; Real Estate; Professional, Scientific, and Technical Services; Administrative, Support, Waste Management, and Remediation Services; Educational Services; Health Care and Social Assistance; Arts, Entertainment, and Recreation; Accommodation; and Other Services. Information about government employment is not available through the Economic Census.

is the most diversified economy by our definition since people are employed evenly across sectors, while Apple County is the least diversified since all people are employed in a single sector. The EDI for each county would be as calculated in Table 2:

TABLE 2
Hypothetical EDI Calculations

County	Agriculture Share	Manufacturing Share	Economic Diversity Index
Apple	100%	0%	$\frac{1}{10,000} * (100^2 + 0^2) = 1$
Banana	75%	25%	$\frac{1}{10,000} * (75^2 + 25^2) = 0.625$
Cherry	50%	50%	$\frac{1}{10,000} * (50^2 + 50^2) = 0.5$

The EDI recognizes Cherry County as the most diverse economy and Apple County as the least diverse economy.

In general, the EDI will vary between $\frac{1}{\# \text{ of sectors}}$, when employment is equally distributed across sectors, and 1, when employment is all in one sector. An increasing EDI signals that the economy is less diverse or more concentrated. In the Economic Census data, there are 15 major sectors, so the EDI may vary between 0.0667 and 1.

We calculated the EDI for all counties in the United States and ranked them by their economic diversity in Table 3. Orange County is the third most diverse economy in the United States, behind San Mateo County, California and King County, Washington:

TABLE 3
The 20 Most Diverse County Economies in the United States

Rank	County	Largest City in County	Economic Diversity Index
1	San Mateo County, California	Daly City	0.0907
2	King County, Washington	Seattle	0.0928
3	Orange County, California	Anaheim	0.0958
4	Mecklenburg County, North Carolina	Charlotte	0.0965
5	Los Angeles County, California	Los Angeles	0.0966
6	Johnson County, Kansas	Overland Park	0.0967
7	Dakota County, Minnesota	Eagan	0.0975
8	Dallas County, Texas	Dallas	0.0982
9	Fulton County, Georgia	Atlanta	0.0984
10	DuPage County, Illinois	Naperville/Aurora	0.0990
11	Harris County, Texas	Houston	0.1006
12	Cook County, Illinois	Chicago	0.1006
13	Denver County, Colorado	Denver	0.1009
14	Wake County, North Carolina	Raleigh	0.1013
15	Marion County, Indiana	Indianapolis	0.1013
16	Essex County, New Jersey	Newark	0.1015
17	San Diego County, California	San Diego	0.1016
18	Multnomah County, Oregon	Portland	0.1016
19	Fairfield County, Connecticut	Bridgeport	0.1018
20	Alameda County, California	Oakland	0.1018

Most of these counties contain large cities, like Houston, Dallas, Chicago, and Los Angeles. Generally, counties that have a larger population are more likely to have large employers in all 15 industries used in the measure and a lower EDI, though there are exceptions, such as El Paso County, Texas, which has an EDI of 0.383 and ranks in the bottom 10% of counties by EDI.

2017 SPRING ECONOMIC FORECAST

SAVE THE DATE

Thursday, April 27, 2017
Irvine Marriott

Title Sponsor:



CALIFORNIA BANK
TRUST



Dr. Anil Puri

Interim Provost and Vice President
for Academic Affairs

Director, Woods Center for Economic
Analysis and Forecasting

California State University, Fullerton



Dr. Mira Farka

Professor, Department of Economics

Co-Director, Woods Center for
Economic Analysis and Forecasting

California State University, Fullerton

SCHEDULE:

Sponsors VIP Reception

10:30 – 11:15 a.m.

Registration & Networking

11:00 – 11:30 a.m.

Luncheon & Program

11:30 a.m. – 1:30 p.m.

LOCATION:

Irvine Marriott

18000 Von Karman Ave., Irvine

TO REGISTER, visit business.fullerton.edu/spring-forecast

SPONSORSHIP OPPORTUNITIES, contact Amanda Leon
at 657-278-7918 or amleon@fullerton.edu



THE EXECUTIVE COUNCIL



CALIFORNIA STATE UNIVERSITY
FULLERTON

MIHAYLO COLLEGE
OF BUSINESS AND ECONOMICS

Our Mission

The Executive Council provides funding and industry-focused expertise in support of academic excellence, business community engagement and educational programs at CSUF Mihaylo College of Business and Economics. Proceeds from membership and fundraising efforts support student scholarships, the Business Tutoring Center and Mihaylo Career Services.

- ▶ **MENTOR** and recruit top Mihaylo business students
- ▶ **PROMOTE** business opportunities through sponsorships
- ▶ **NETWORK** with other professionals in leadership positions
- ▶ **ADVOCATE** on behalf of the business leaders of tomorrow

For more information about this dynamic group, contact Amanda Leon at amleon@fullerton.edu or 657-278-7918 or visit business.fullerton.edu/executive-council.



CALIFORNIA STATE UNIVERSITY
FULLERTON
PHILANTHROPIC FOUNDATION

proud sponsor of the

**Mihaylo College
2016 Economic Forecast**





**STRONGER
ECONOMIES
BENEFIT
EVERYONE.**

WE AGREE.

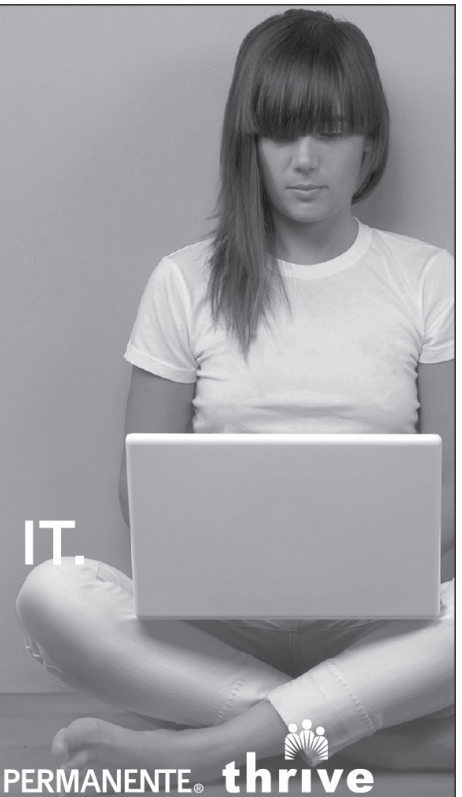
A strong economy is good for everyone's business. So at Chevron, we help to support the economy where we operate. We purchase goods and services locally. And we're committed to supporting the businesses around us. We're making investments where we work that will benefit the whole community – including us.

Learn more at chevron.com

Chevron
Human Energy®

CHEVRON, the CHEVRON Hallmark and HUMAN ENERGY are registered trademarks of Chevron Intellectual Property LLC. © 2015 Chevron U.S.A. Inc. All rights reserved.

**CALL IN.
CLICK IN.
OR COME IN.**
CARE, THE WAY YOU WANT IT.



kp.org/orangecounty

KAISER PERMANENTE®  **thrive**

manatt

Proud to be a part of the solution.

Manatt is pleased to support the 22nd Annual

Economic Forecast Conference

jointly presented by the OCBC and California State University, Fullerton.

Manatt, Phelps & Phillips, LLP **manatt.com**



At Cox Business we give you all the tools to make your vision a reality.
Explore our advanced suite of video, voice and data services.

BUSINESS REQUIRES VISION

You want a provider whose business solutions can grow with your success. Our dedicated local team offers 24/7 response.
There's never been a better time to switch to Cox Business.

www.coxbusiness.com | (844) 271-8991

Together

We're Generating More Than Electricity

**Southern California Edison,
an Edison International company,
is proud to support the
Orange County Business Council**

2016 Economic Forecast Conference



FOR OVER 100 YEARS...LIFE. POWERED BY EDISON.



**Specializing in tax and accounting
for individuals and privately held businesses**

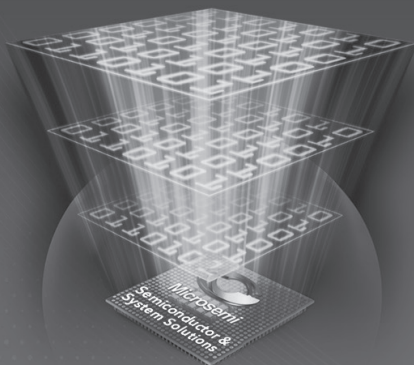
- Tax planning and compliance
- Audits, reviews, and compilations
- Employee benefit plan audits
 - Estate planning
- Business advisory services and succession planning
- State-of-the-art cloud-based accounting and bookkeeping services

949.833.2815
www.HBLA.com

Celebrating 30 Years
HBLA
CERTIFIED PUBLIC ACCOUNTANTS, INC.



FPGA, Timing, Storage, Mixed-Signal/RF & Discrete
Microsemi - The Total Solution.



Leading Provider of Semiconductor Solutions
Differentiated by Power, Security,
Reliability and Performance

www.microsemi.com

Here's to Great Neighbors

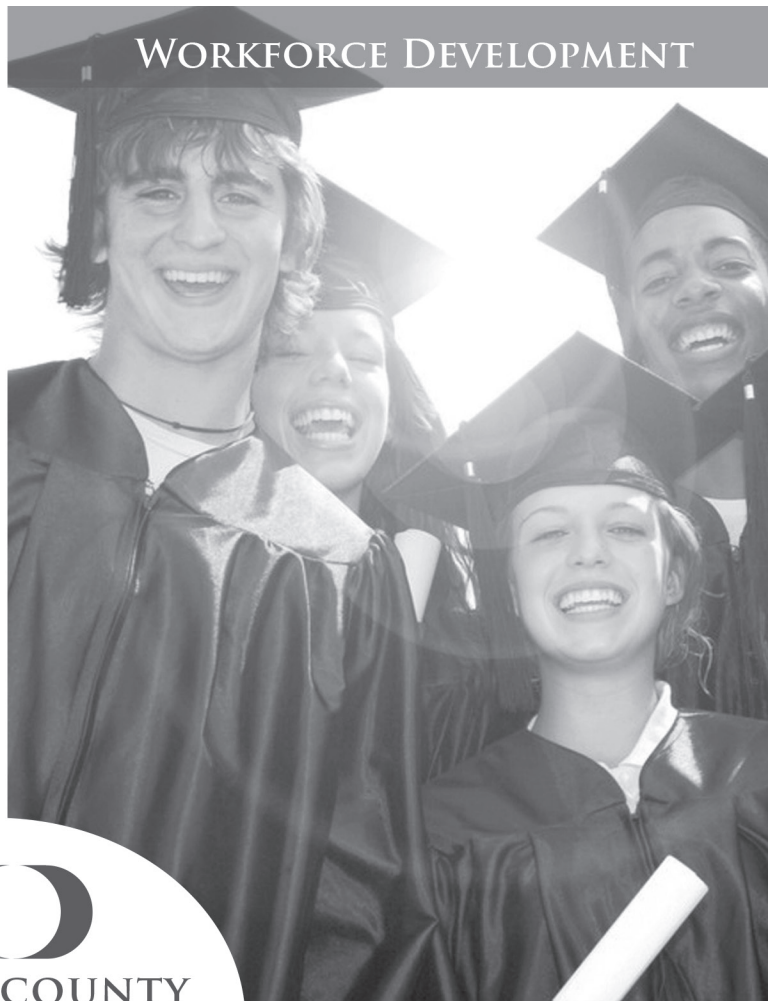
To the ones who raise
expectations — work together
with others to achieve new
heights — and make our
community a better place.

FIVEPOINT™
Delivered as promised.

ECONOMIC DEVELOPMENT



WORKFORCE DEVELOPMENT



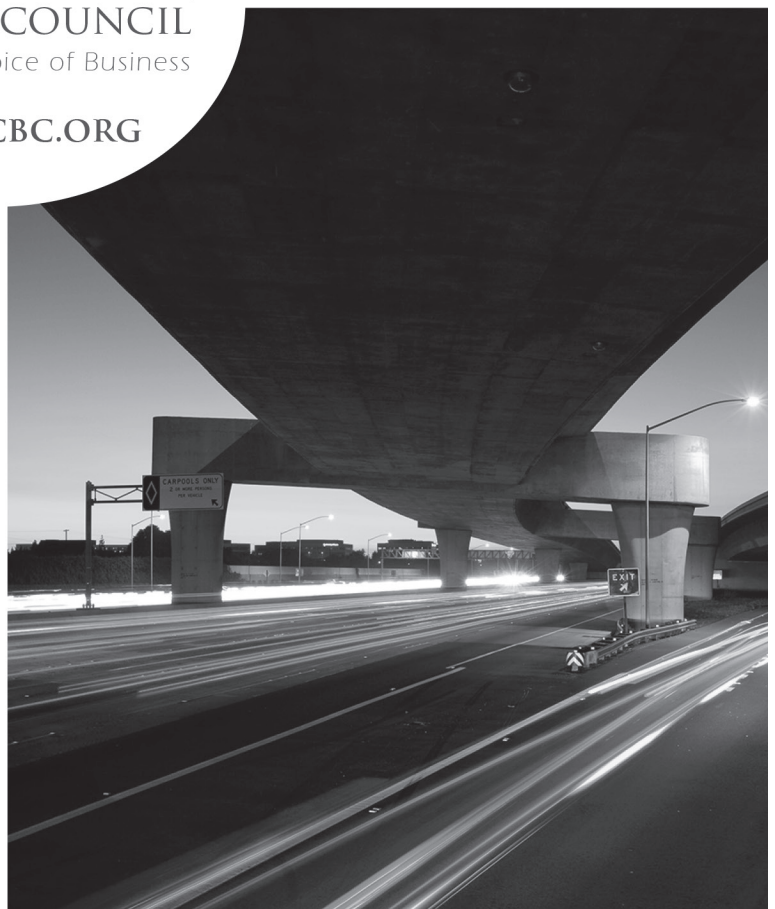
ORANGE COUNTY
BUSINESS COUNCIL

The Leading Voice of Business

WWW.OCBC.ORG



WORKFORCE HOUSING



INFRASTRUCTURE